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PHASE II RFI/RI REPORT
903 PAD, MOUND, AND
EAST TRENCHES AREA
OPERABLE UNIT NO. 2

VOLUME 7

APPENDIX A
OU-2 GEOLOGICAL DATA

U.S. Department of Energy
Rocky Flats Environmental Technology Site
Golden, Colorado

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°C	degrees Celsius
%R	percent recovery
µCi/L	microcuries per liter
µg/kg	micrograms per kilogram
µg/L	micrograms per liter
µCi/yr	microcuries per year
µm	micrometers
1,1-DCE	1,1-dichloroethene
1,1,1-TCA	1,1,1-trichloroethane
1,2-DCA	1,2-dichlorethane
1,2-DCE	1,2-dichloroethene
ac-ft	acre feet
AEC	Atomic Energy Commission
AET	actual evapotranspiration
Ag	silver
AGL	above ground level
AGS	above ground surface
Al	aluminum
ALARA	as low as reasonably achievable
Am	americium
Am-241	americium-241
$Am_2(CO_3)_3$	americium carbonate
AmO_2	americium dioxide
ANOVA	Analysis of Variance
ANOVA	Analysis of Variance
AOC	Area of Concern
AR	activity ratio
ARARs	applicable or relevant and appropriate requirements
As	arsenic
ASTM	American Society for Testing and Materials
ATD	At time of drilling
atm-m^3/mole	Atmosphere-cubic meter per mole
Ba	barium
BCF	bioconcentration factor
Be	beryllium
BEHP	bis(2-ethylhexyl)phthalate
BGS	below ground surface
BH	borehole
BNA	base neutral acid extractable
Bq	Becquerel
BSL	Background Screening Level

BW	body weight
c/f	coarse fine limit
Ca	calcium
CAS	Chemical Abstract Services
CCl_4	carbon tetrachloride
Cd	cadmium
CDH	Colorado Department of Health
CDPHE	Colorado Department of Public Health and Environment
Ce	cesium
CEARP	Comprehensive Environmental Assessment & Response Program
CEC	cation exchange capacity
CEDE	committed effective dose equivalent
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
cfm	cubic feet per minute
CHC	chlorinated hydrocarbon
$CHCl_3$	chloroform
Ci	curies
Cis-1,2-DCE	cis-1,2-dichloroethene
CLP	Contract Laboratory Program
cm	centimeter
cm/hr	centimeters per hour
cm/s	centimeters per second
cm^3	cubic centimeter
CME	Central Mine Equipment
CMS/FS	Corrective Measures Study/Feasibility Study
Co	cobalt
COC	chemical of concern
COI	chemicals of interest
cpm	counts per minute
Cr	chromium
Cr VI	chromium hexavalent
CRDL	contract required detection limit
CRQL	contract required quantitation limit
CS	claystone
Cs-134	cesium-34
Cs-137	cesium-137
CSM	conceptual site model
CSU	Colorado State University
CT	central tendency
Cu	copper
Cu	copper
CUHP	Colorado Urban Hydrograph Procedure
DCG	Derived Concentration Guide

DCN	document change notice
DF10 qualifier	10x dilution
DF50 qualifier	50x dilution
DMR	document modification request
DNAPL	dense non-aqueous phase liquid
DO	dissolved oxygen
DOE	Department of Energy
dpm/g	disintegrations per minute per gram
DQO	Data Quality Objective
DRCOG	Denver-Regional Council of Governments
DW	dry weight
ECAO	Environmental Criteria and Assessment Office
ED	exposure duration
EDE	effective dose equivalent
EE	Environmental Evaluation
EF	exposure frequency
EG&G	EG&G Rocky Flats, Inc.
EIS	Environmental Impact Statement
EM	electromagnetics
EMC	event mean concentrations
EMD	Environmental Management Department
EPA	Environmental Protection Agency
ER	Environmental Restoration
ERA	Environmental Risk Assessment
ERDA	Energy Research and Development Administration
ERM	Environmental Restoration Management
ET	evapotranspiration
FDM	Fugitive Dust Model
Fe	iron
f_i	fractional uptake
FID	flame ionization detectors
FIDLER	field instrument for the detection of low-energy radiation
FS	feasibility study
FSP	field sampling plan
ft^2/min	square feet per minute
FWHM	full width half maximum
FWS	U.S. Fish and Wildlife Service
g/l	grams per liter
g/cm^3	gram per cubic centimeter
g/s	grams per second
g	grams
GC/MS	gas chromatography/mass spectrometry
GI	gastrointestinal
GIS	geographical information system

gpd/ft^2	gallons per day per square foot
gpm	gallons per minute
GPMPP	Groundwater Protection and Monitoring Program Plan
GPR	ground-penetrating radar
GRRASP	General Radiochemistry and Routine Analytical Services Protocol
GSSI	Geophysical Survey Systems, Inc.
GUI	Graphical User Interface
Gy	gray
HASL	Health and Safety Laboratory
HEPA	High Efficiency Particulate Air
Hg	mercury
HHRA	Human Health Risk Assessment
HI	hazard index
HPGe	high purity germanium
HQ	Hazard Quotient
HRR	Historical Release Report
HSA	hollow-stem auger
HSL	Hazardous Substances List
HSPF	Hydrologic Simulation Program in Fortran
HSU	hydrostratigraphic unit
IA	Industrial Area
IAG	Interagency Agreement
ICRP	International Commission on Radiological Protection
ID	inside diameter
IDL	instrument detection limit
IEUBK	Integrated Exposure Uptake Biokinetic
IHSS	Individual Hazardous Substance Site
IM/IRA	Interim Measures/Interim Remedial Action
IR	intake rate
K	potassium
K	hydraulic conductivity
K_l	Cretaceous Laramie formation
Ka	Cretaceous Arapahoe formation
kg	kilogram
km^2	square kilometer
LCS	laboratory control samples
LF	lateral flow
LHSU	lower hydrostratigraphic unit
Li	lithium
LNAPL	light non-aqueous phase liquid
LOAEL	lowest-observed-adverse-effect level
LR	laboratory replicate
m/s	meters per second
m	meter

m^2	square meter
m^2/g	square meters per gram
mCi	microcurie
MDA	minimal detectable activity
MDL	method detection limit
ME	matrix effect
meg/l	milliequivalents per liter
mg	milligram
mg/kg	milligrams per kilogram
mg/l	milligrams per liter
Mg	magnesium
MKV	Mean Kriging Variance
mm	millimeters
Mn	manganese
Mo	molybdenum
mrem	millirem
MSA	Method of Standard Addition
MSE	mean square error
MW	monitoring well
Na	sodium
NA	not applicable
NAAQS	National Ambient Air Quality Standards
NAPL	Non-aqueous phase liquid
NCP	National Contingency Plan
NCRP	National Council on Radiation Protection and Measurements
ND	not definitive
NE	northeast
NE	not encountered
Ni	nickel
NI	not installed
nm	nanometer
NO_2	nitrite
NO_3	nitrate
NOAEL	no-observed-adverse-effect level
NP	non-plastic
NPDES	National Pollutant Discharge Elimination System
OB	observation well
OD	outside diameter
OH	hydroxide ion
OU	Operable Unit
OVM	organic vapor monitor
PA	protected area
PAH	polynuclear aromatic hydrocarbon

PARCC	precision, accuracy, representativeness, completeness, and comparability
Pb	lead
PC	permeability constant
PCB	polychlorinated biphenyl
PCE	tetrachloroethylene
pcf	pounds per cubic foot
pCi/m^3	picocuries per cubic meter
pCi/ml	picocuries per milliliter
pCi/g	picocuries per gram
pCi/l	picocuries per liter
PCOC	potential chemicals of concern
PERC	perchloroethylene
PID	photoionization detector
PM_{10}	particle matter less than or equal to 10 micrometers in diameter
Po	polonium
ppb	parts per billion
ppm	parts per million
PQL	practical quantitation limit
PRG	preliminary remediation goal
PTFE	polyethylene tetrafluoride
Pu	Plutonium
Pu-239/240	plutonium-239,240
Pu-239	plutonium-239
PVC	polyvinyl chloride
PW	pumping well
QA/QC	quality assurance/quality control
QAA	Quality Assurance Addendum
Qal	valley fill alluvium
QAPP	Quality Assurance Project Plan
Qc	colluvium
QC	quality control
Qrf	Rocky Flats Alluvium
R	radius of influence
Ra	radium
Ra-226	radium-226
Ra-228	radium-228
RAAMP	Radiological Ambient Air Monitoring Program
RAD screen	radiological screen
RAD	radiological
RAO	Remedial Action Objectives
RBC	risk-based concentrations
RBWP	Revised Bedrock Work Plan
RCRA	Resource Conservation and Recovery Act

RDL	required detection limit
RFA	Rocky Flats Alluvium
RfC	Reference Air Concentration
RfD	Reference Dose
RFEDS	Rocky Flats Environmental Database System
RFETS	Rocky Flats Environmental Technology Site
RFI/RI	RCRA Facility Investigation/Remedial Investigation
RFP	Rocky Flats Plant
RI	remedial investigation
RME	reasonable maximum exposure
RNS	rinsate blank results
ROD	Record of Decision
RPD	relative percent difference
SA	Sample Management
SAFER	Streamlined Approach for Environmental Restoration
SAP	sampling and analysis plan
Sb	antimony
SB	source borehole
SCS	Soil Conservation Service
Se	selenium
Se	selenium
SE	southeast
SEAM	Superfund Exposure Assessment Manual
SED	Sediment Sampling Location
SERA	Superfund Amendments and Reauthorization
SF	slope factor
Si	silicon
SID	South Interceptor Ditch
SIR	Subsurface Interface Ratio
SIR	Subsurface Interface Radar
SLTST	siltstone
SM	sample management
Sn	tin
SOP	Standard Operating Procedure
SOW	Statement of Work
SQL	sample quantitation limit
Sr	strontium
Sr-89,90	Strontium-89,90
SS	sandstone
Sv	sievert
SVE	soil vapor extraction
SVOC	semivolatile organic compound
SWL	sample
SWMS	Soil Water Monitoring System

SWMU	Solid Waste Management Unit
TAL	target analyte list
TCE	trichloroethene
TCL	Target Compound List
TD	total depth
TDR	time domain reflectometry
TDS	total dissolved solids
TEDE	total effective dose equivalent
Th	thorium
TIC	tentatively identified compound
TM	Technical Memorandum
TOC	total organic carbon
TPH	total petroleum hydrocarbon
TR	trench
TRC	total residual chlorine
TS	tension sampler
TSP	total suspended particulate
TSS	total suspended solids
U	uranium
U-234	uranium-234
U-235	uranium-235
U-238	uranium-238
UCL	upper confidence limit
UDFCD	Urban Drainage and Flood Control District
UHSU	upper hydrostratigraphic unit
USCS	Unified Soil Classification System
USDA	United States Department of Agriculture
USLE	Universal Soil Loss Equation
UTL	upper tolerance limit of the background data
V	vanadium
VF	volatilization factor
VOC	volatile organic compound
VVDM	Ventilated Valley Dispersion Model
WARP	Well Abandonment and Replacement Program
WQPL	Water Quality Parameter List
WW	wet weight
WWC	Woodward-Clyde Consultants
WWTP	Waste Water Treatment Plant
Z	zinc
Zn	zinc
ZTS	zero tension samplers
ZTS	sero tension samplers

APPENDIX A3
OU-2 STRATIGRAPHIC DATA
(HISTORICAL, PHASE II AND OTHER INVESTIGATIONS)

TABLE A-3
OU-2 STRATIGRAPHIC DATA
LEGEND

ABBREVIATIONS:

BH	-	Borehole
MW	-	Monitoring Well
AMW	-	Abandoned Monitoring Well
MWA	-	Abandoned Monitoring Well Installation Attempt
PW	-	Phase II Test Pumping Well
PWA	-	Abandoned Phase II Test Pumping Well Installation Attempt
OB	-	Phase II Test Observation Well
OBA	-	Abandoned Phase II Test Observation Well
BGS	-	Below Ground Surface
BCP	-	Below Concrete Pad
NA	-	Information Not Available
NE	-	Not Encountered

SYMBOLS:

! - BH2987 same as 1187BRA
0987 same as BH2987
1587 same as BH3087
3387 same as BH5687

* - Cutting samples collected from majority of borehole length. Some short intervals were cored.

** - Cutting samples collected from entire borehole length.

*** - No core or cutting samples collected from borehole.

@ - For monitoring wells (excluding 1993 vintage wells), elevations are at the top of concrete pad. Typical thickness of concrete pads is 6 inches. For boreholes, the elevations are at ground surface. Depths are recorded below ground surface for boreholes and below concrete pad for monitoring wells. For 1993 vintage monitoring wells and boreholes, elevations are at ground surface.

(1) Depth to Top of Bedrock: In some boreholes, subsurface soils were not recovered in the core barrel across the alluvial/bedrock contact. In these cases, the top of bedrock was determined from surrounding borehole control. This depth is shown in the column and the actual no recovery interval is listed in parentheses. Where offset wells were reamed across the alluvial/bedrock contact, the top of bedrock depth from the adjacent pair is shown with the qualifier, "approximate" listed in parenthesis.

TABLE A-3
OU-2 STRATIGRAPHIC DATA
LEGEND (continued)

(2) See next page for progressively deeper Laramie sandstone/siltstone intervals.

12.5+ Used in Thickness Columns where total depth of boring did not penetrate base of geologic unit in question.

(e) For 1993 vintage monitoring wells and boreholes, stratigraphic picks within reamed or no recovery intervals were estimated from surrounding borehole control.

TABLE A-3
OU-2 STRATIGRAPHIC DATA

Site Identification		@	Depths		Elevations		Arapahoe Sandstone (No.1)					Laramie Sandstone/Siltstone Interval (2)				
Site Number	Borehole / Monitor Well Designation	Ground Level or Concrete Pad Elev.(Ft)	Top of Bedrock (1) (Ft)@	Total Depth (Ft)@	Top of Bedrock (Ft)	Total Depth (Ft)	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)
171	AMW	NA	NA	NA	NA	NA										
271	AMW	NA	NA	NA	NA	NA										
174	AMW	NA	NA	NA	NA	NA										
374	AMW	NA	NA	NA	NA	NA										
286	MW	5725.01	7.8	13.0	5717.21	5712.01										
386	MW	5676.24	8 (4.7-8.0)	28.0	5668.24	5648.24										
3386	MW	5951.40	6.8	16.8	5944.60	5934.60										
3486	MW	5912.00	13.5 (13.5-15.9)	100.0	5898.50	5812.00										
3586	MW	5910.75	10.5	18.0	5900.25	5892.75										
3686	MW	5883.69	5.5	10.2	5878.19	5873.49										
3786	MW	5796.61	7.5	13.0	5789.11	5783.61										
3986	MW	5908.23	30.5 (27.6-30.5)	37.0	5877.73	5871.23										
4086	MW	5943.85	45.0	124.8	5898.85	5819.05										
4186	MW	5942.62	44.6	44.8	5898.02	5897.82										
4286	AMW	5956.27	28.2	33.0	5928.07	5923.27										
4386	MW	5972.91	17.0	22.0	5955.91	5950.91	17.0	NE	5955.91	NE	5.0 +					
6286	MW	5902.01	22.0	59.3	5880.01	5842.71										
6386	MW	5901.09	14.8	17.3	5886.29	5883.79										
6486	MW	5839.06	8.5	14.0	5830.56	5825.06										
6586	MW	5786.66	7.1 (1.0-7.1)	12.5	5779.56	5774.16										
6786	MW	5802.33	14.0 (12.0-15.0)	15.0	5788.33	5787.33										
687	MW	5904.76	6.5	14.3	5898.26	5890.46										
687A	MWA	5898.22	5.2	32.6	5893.02	5865.62										
BH0887	BH	5951.50	7.0	15.0	5944.50	5936.50										
987!	MW	5980.22	12.5 (11.5-17.5)	37.5	5967.72	5942.72	12.7	32.0	5967.52	5948.22	19.3					
1087	MW	5981.95	11.3	17.0	5970.65	5964.95	11.3	NE	5970.65	NE	5.7 +					
1187	MW	5913.60	5.2	30.0	5908.40	5883.60						11.4	21.5	5902.20	5892.10	10.1
1287	MW	5934.81	3.5	16.0	5931.31	5918.81										
1287A	MWA	5933.85	NE	4.0	NE	5929.85										
1387A	MWA	5855.02	4.3	41.5	5850.72	5813.52										
1487	MW	5854.98	5.2	25.5	5849.78	5829.48										
1587!	MW	5971.27	21.8	27.0	5949.47	5944.27										
BH1587	BH	5985.00	17.0 (10.5-17.0)	24.0	5968.00	5961.00										
1687	MW	5969.49	22.2	174.0	5947.29	5795.49										
BH1687	BH	5950.00	2.0 (0.2-2.0)	12.0	5948.00	5938.00										
1787	MW	5968.01	25.0	32.3	5943.01	5935.71										
1787A	MWA	5967.58	25.9	26.3	5941.68	5941.28										
BH1787	BH	5956.00	5.3 (4.5-7.0)	12.0	5950.70	5944.00										

TABLE A-3
OU-2 STRATIGRAPHIC DATA

Site Identification		Laramie Sandstone/Siltstone Interval					Laramie Sandstone/Siltstone Interval					Laramie Sandstone/Siltstone Interval				
Site Number	Borehole / Monitor Well Designation	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)
171	AMW															
271	AMW															
174	AMW															
374	AMW															
286	MW															
386	MW						14.0	23.0	5662.24	5653.24	9.0					
3386	MW															
3486	MW						48.0	54.3	5864.00	5857.70	6.3	89.0	96.0	5823.00	5816.00	7.0
3586	MW															
3686	MW															
3786	MW															
3986	MW															
4086	MW															
4186	MW															
4286	AMW															
4386	MW															
6286	MW	25.3	33.0	5876.71	5869.01	7.7	36.0	59.3	5866.01	5842.71	23.3					
6386	MW															
6486	MW															
6586	MW															
6786	MW															
687	MW															
687A	MWA	14.0	32.6	5884.22	5865.62	18.6										
BH0887	BH															
987!	MW															
1087	MW															
1187	MW															
1287	MW															
1287A	MWA															
1387A	MWA						18.5	21.0	5836.52	5834.02	2.5					
1487	MW						9.0	24.5	5845.98	5830.48	15.5					
1587!	MW															
BH1587	BH															
1687	MW											140.5	153.0	5828.99	5816.49	12.5
BH1687	BH															
1787	MW															
1787A	MWA															
BH1787	BH															

TABLE A-3
OU-2 STRATIGRAPHIC DATA

Site Identification		@	Depths		Elevations		Arapahoe Sandstone (No.1)					Laramie Sandstone/Siltstone Interval (2)				
Site Number	Borehole / Monitor Well Designation	Ground Level or Concrete Pad Elev.(Ft)	Top of Bedrock (1) (Ft)@	Total Depth (Ft)@	Top of Bedrock (Ft)	Total Depth (Ft)	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)
1887	MW	5967.99	27.0 (22.1-32.7)	148.0	5940.99	5819.99										
1987	MW	5968.44	10.8	16.1	5957.64	5952.34										
2087	MW	5968.66	11.8	126.2	5956.86	5842.46										
2187	MW	5928.43	8.0	17.0	5920.43	5911.43										
2287	MW	5930.70	12.8	111.0	5917.90	5819.70										
BH2287	BH	5978.50	22.2 (20.0-22.2)	27.2	5956.30	5951.30										
2387	MW	5972.79	15.3	45.3	5957.49	5927.49	17.0	37.0	5955.79	5935.79	20.0					
BH2387	BH	5964.20	8.0 (7.0-8.0)	12.5	5956.20	5951.70										
2487	MW	5958.29	15.1	18.5	5943.19	5939.79										
BH2487	BH	5953.60	5.0 (4.9-7.5)	12.3	5948.60	5941.30										
2587	MW	5959.48	16.5	47.0	5942.98	5912.48	17.5	44.7	5941.98	5914.78	27.2					
BH2587	BH	5953.20	10.0 (10.0-14.8)	22.5	5943.20	5930.70										
2687	MW	5954.28	14.5 (14.5-16.0)	18.0	5939.78	5936.28										
BH2687!	BH	5934.10	2.0	7.9	5932.10	5926.20										
2787	MW	5947.80	44.2	47.3	5903.60	5900.50										
BH2787	BH	5944.70	9.9	17.0	5934.80	5927.70										
2887	MW	5947.56	45.5 (43.5-45.5)	207.0	5902.06	5740.56										
BH2887	BH	5946.70	5.9 (3.9-5.9)	9.0	5940.80	5937.70										
2987	MW	5812.61	18.8 (17.9-19.8)	25.7	5793.81	5786.91										
3087	MW	5810.12	16.0 (14.0-16.0)	110.0	5794.12	5700.12										
3187	MW	5945.31	44.0 (43.5-45.0)	140.0	5901.31	5805.31										
BH3187	BH	5973.80	7.7	22.9	5966.10	5950.90	7.7	9.8	5966.10	5964.00	2.1					
3287	MW	5946.38	46.0	51.7	5900.38	5894.68										
BH3287	BH	5971.70	5.7 (4.8-7.7)	20.5	5966.00	5951.20	7.7	NE	5964.00	NE	12.8 +					
3387!	MW	5945.78	19.0 (18.0-19.0)	24.5	5926.78	5921.28										
BH3387	BH	5967.90	9.2	20.8	5958.70	5947.10	11.0	NE	5956.90	NE	9.8 +					
3487	MW	5945.60	18.0 (15.0-20.0)	124.0	5927.60	5821.60										
BH3487	BH	5971.40	15.2 (15.2-16.7)	24.5	5956.20	5946.90	16.7	NE	5954.70	NE	7.8 +					
3587	MW	5949.96	9.1	14.4	5940.86	5935.56										
BH3587	BH	5970.50	14.3	20.3	5956.20	5950.20										
3687	MW	5949.67	7.4	74.5	5942.27	5875.17	21.0	63.0	5928.67	5886.67	42.0					
BH3687	BH	5969.40	20.6	26.0	5948.80	5943.40										
BH3787	BH	5968.80	12.0 (8.5-21.7)	28.0	5956.80	5940.80										
BH3887	BH	5965.30	14.6 (14.6-16.4)	23.4	5950.70	5941.90										
BH3987	BH	5956.90	14.5 (13.0-14.5)	22.0	5942.40	5934.90										
BH4087	BH	5953.70	8.0	14.5	5945.70	5939.20										
BH4187	BH	5950.20	15.0	19.5	5935.20	5930.70										
BH4287	BH	5950.50	24.0	55.5	5926.50	5895.00	24.0	NE	5926.50	NE	31.5 +					

TABLE A-3
OU-2 STRATIGRAPHIC DATA

Site Identification		Laramie Sandstone/Siltstone Interval					Laramie Sandstone/Siltstone Interval					Laramie Sandstone/Siltstone Interval				
Site Number	Borehole / Monitor Well Designation	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)
1887	MW	109.1	113.1	5858.89	5854.89	4.0	130.1	131.6	5837.89	5836.39	1.5					
1987	MW															
2087	MW															
2187	MW															
2287	MW						84.0	93.1	5846.70	5837.60	9.1					
BH2287	BH															
2387	MW															
BH2387	BH															
2487	MW															
BH2487	BH															
2587	MW															
BH2587	BH															
2687	MW															
BH2687!	BH															
2787	MW															
BH2787	BH															
2887	MW															
BH2887	BH															
2987	MW															
3087	MW															
3187	MW	112.5	129.0	5832.81	5816.31	16.5										
BH3187	BH															
3287	MW															
BH3287	BH															
3387!	MW															
BH3387	BH															
3487	MW															
BH3487	BH															
3587	MW															
BH3587	BH															
3687	MW															
BH3687	BH															
BH3787	BH															
BH3887	BH															
BH3987	BH															
BH4087	BH															
BH4187	BH															
BH4287	BH															

TABLE A-3
OU-2 STRATIGRAPHIC DATA

Site Identification		@	Depths		Elevations		Arapahoe Sandstone (No.1)					Laramie Sandstone/Siltstone Interval (2)				
Site Number	Borehole / Monitor Well Designation	Ground Level or Concrete Pad Elev.(Ft)	Top of Bedrock (1) (Ft)@	Total Depth (Ft)@	Top of Bedrock (Ft)	Total Depth (Ft)	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)
BH4387	BH	5956.50	26.2 (22.3-27.2)	34.7	5930.30	5921.80	32.2	NE	5924.30	NE	2.5 +					
4487	MW	5949.63	3.2	7.4	5946.43	5942.23										
BH4487	BH	5956.10	27.0	34.5	5929.10	5921.60	27.0	33.30	5929.10	5922.80	6.3					
4587	MW	5949.32	3.0 (2.0-4.0)	112.0	5946.32	5837.32						38.0	39.0	5911.32	5910.32	1.0
BH4587	BH	5952.70	20.0 (18.7-20.0)	40.0	5932.70	5912.70	20.0	NE	5932.70	NE	20.0 +					
BH4687	BH	5952.60	27.0 (24.7-27.0)	32.0	5925.60	5920.60										
BH4787	BH	5961.40	27.7 (25.5-27.7)	28.2	5933.70	5933.20										
BH4887	BH	5949.40	11.5 (10.8-13.2)	17.4	5937.90	5932.00										
BH4987	BH	5953.00	22.0	25.8	5931.00	5927.20										
5087	MW	5933.14	12.5	27.0	5920.64	5906.14										
BH5087	BH	5949.20	12.0 (11.0-12.0)	19.5	5937.20	5929.70										
BH5187	BH	5949.00	16.0	19.5	5933.00	5929.50										
BH5287	BH	5948.10	17.0 (17.0-22.0)	25.0	5931.10	5923.10										
BH5387	BH	5948.30	22.2	24.0	5926.10	5924.30										
BH5487	BH	5946.20	40.0 (37.1-43.0+)	43.0	5906.20	5903.20										
BH5587	BH	5944.90	37.0	39.5	5907.90	5905.40										
BH6187	BH	5931.72	8.1	14.0	5923.62	5917.72										
B213789	MW	5917.80	6.4	9.6	5911.40	5908.20	6.4	6.7	5911.40	5911.10	0.3					
B215389	BH	5954.90	24.0 (23.0-24.0)	30.0	5930.90	5924.90										
B217289	MW	5677.60	5.1	220.0	5672.50	5457.60										
B217389	BH	5961.60	25.2	64.0	5936.40	5897.60	25.2	46.0	5936.40	5915.60	20.8	46.0	61.0	5915.60	5900.60	15.0
B217489	MW	5961.20	25.0 (24.0-25.0)	220.0	5936.20	5741.20	25.2	47.0	5936.00	5914.20	21.8	47.7	60.5	5913.50	5900.70	12.8
B217589	MW	5952.90	16.7	221.3	5936.20	5731.60										
B217689	MW	5960.53	22.0	220.1	5938.53	5740.43	22.0	47.0	5938.53	5913.53	25.0					
B217789	MW	5954.90	23.6	220.1	5931.30	5734.80										
B218189	BH	5937.70	44.5	53.0	5893.20	5884.70										
B218589	BH	5946.80	29.0 (28.6-30.0)	300.1	5917.80	5646.70										
B218689	BH	5949.00	16.0	55.0	5933.00	5894.00	20.0	22.0	5929.00	5927.00	2.0					
B218789	MW	5962.80	27.0 (26.9-28.0)	42.3	5935.80	5920.50	30.0	NE	5932.80	NE	12.3 +					
B218989	BH	5950.30	18.0 (17.2-18.0)	54.0	5932.30	5896.30										
B219789	BH	5948.00	40.0	52.0	5908.00	5896.00										
B220189	MW	5949.27	15.0	18.0	5934.27	5931.27	15.0	NE	5934.27	NE	3.0 +					
B220489***	BH	5958.19	28.2 (approx.)	28.6	5929.99	5929.59										
B315289	MW	5963.20	19.0	220.0	5944.20	5743.20	22.0	48.0	5941.20	5915.20	26.0	54.0	65.0	5909.20	5898.20	11.0
B317189	MW	5725.00	8.0 (8.0-8.5)	220.4	5717.00	5504.60										
B318889	BH	5954.10	14.3	57.0	5939.80	5897.10						37.0	38.0	5917.10	5916.10	1.0
B300190	BH	5916.30	6.0	28.0	5910.30	5888.30	6.0	12.5	5910.30	5903.80	6.5					
B300290	BH	5909.40	6.0 (5.9-6.0)	28.0	5903.40	5881.40	6.0	7.0	5903.40	5902.40	1.0					

TABLE A-3
OU-2 STRATIGRAPHIC DATA

Site Identification		Laramie Sandstone/Siltstone Interval					Laramie Sandstone/Siltstone Interval					Laramie Sandstone/Siltstone Interval				
Site Number	Borehole / Monitor Well Designation	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)
BH4387	BH															
4487	MW															
BH4487	BH															
4587	MW						95.8	100.0	5853.52	5849.32	4.2					
BH4587	BH															
BH4687	BH															
BH4787	BH															
BH4887	BH															
BH4987	BH															
5087	MW	22.0	27.0	5911.14	5906.14	5.0										
BH5087	BH															
BH5187	BH															
BH5287	BH															
BH5387	BH															
BH5487	BH															
BH5587	BH															
BH6187	BH	11.0	14.0	5920.72	5917.72	3.0										
B213789	MW															
B215389	BH															
B217289	MW						13.4	24.9	5664.20	5652.70	11.5					
B217389	BH	85.8	87.8	5875.80	5873.80	2.0						142.5	149.5	5819.10	5812.10	7.0
B217489	MW															
B217589	MW															
B217689	MW															
B217789	MW											152.0	154.6	5802.90	5800.30	2.6
B218189	BH															
B218589	BH															
B218689	BH															
B218789	MW															
B218989	BH															
B219789	BH															
B220189	MW															
B220489***	BH															
B315289	MW	89.6	103.5	5873.60	5859.70	13.9						143.4	163.4	5819.80	5799.80	20.0
B317189	MW						59.9	75.3	5665.10	5649.70	15.4					
B318889	BH															
B300190	BH															
B300290	BH															

TABLE A-3
OU-2 STRATIGRAPHIC DATA

Site Identification		@	Depths		Elevations		Arapahoe Sandstone (No.1)					Laramie Sandstone/Siltstone Interval (2)				
Site Number	Borehole / Monitor Well Designation	Ground Level or Concrete Pad Elev.(Ft)	Top of Bedrock (1) (Ft)@	Total Depth (Ft)@	Top of Bedrock (Ft)	Total Depth (Ft)	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)
B300390	BH	5904.60	10.5 (10.0-10.5)	31.7	5894.10	5872.90										
B303390	MW	5916.40	8.0 (7.0-8.0)	10.8	5908.40	5905.60										
B303490	MW	5913.60	7.5	11.2	5906.10	5902.40										
B303590	MW	5911.90	9.7 (8.7-9.7)	17.8	5902.20	5894.10										
B303690	MW	5912.20	17.2 (15.9-17.2)	20.8	5895.00	5891.40										
B303790	BH	5913.30	17.0	32.0	5896.30	5881.30										
00191	MW	5968.86	24.2	34.0	5944.66	5934.86										
00291	MW	5966.17	16.0 (15.1-16.0)	58.0	5950.17	5908.17	36.5	53.7	5929.67	5912.47	17.2					
00391	MW	5920.84	16.9	26.9	5903.94	5893.94						16.9	24.5	5903.94	5896.34	7.6
00491	MW	5903.47	10.9 (8.4-10.9)	23.3	5892.57	5880.17										
00591	MWA	5898.25	4.6 (3.3-4.6)	12.9	5893.65	5885.35										
00691	MW	5894.47	NE	18.5	NE	5875.97										
00791	MW	5907.11	17.6	24.5	5889.51	5882.61										
00891	MW	5868.35	18.2	23.9	5850.15	5844.45										
00991	MW	5867.00	2.9	14.3	5864.10	5852.70										
01091	MWA	5828.57	2.1	14.0	5826.47	5814.57										
01191	MWA	5869.13	9.2	13.4	5859.93	5855.73										
01291	MW	5851.21	12.9	18.9	5838.31	5832.31										
01391	MW	5973.70	14.5	22.0	5959.20	5951.70										
01491	MW	5970.37	1.6	30.0	5968.77	5940.37	1.6	24.7	5968.77	5945.67	23.1					
01791	MW	5965.78	8.0 (6.9-8.0)	24.0	5957.78	5941.78	8.0	NE	5957.78	NE	16.0 +					
01891	MW	5971.76	12.4	35.9	5959.36	5935.86	12.4	29.5	5959.36	5942.26	17.1					
01991	MW	5962.19	29.4	44.8	5932.79	5917.39	34.3	38.5	5927.89	5923.69	4.2					
02091	MW	5965.19	16.1	36.2	5949.09	5928.99	25.0	27.1	5940.19	5938.09	2.1					
02191	MW	5965.81	13.5	20.8	5952.31	5945.01										
02291	MW	5936.66	8.8	19.5	5927.86	5917.16	9.7	13.5	5926.96	5923.16	3.8					
02391	MW	5956.82	6.9 (6.2-6.9)	12.9	5949.92	5943.92										
02491	MW	5944.54	8.5	24.2	5936.04	5920.34	10.8	16.1	5933.74	5928.44	5.3					
02591	MW	5923.57	39.8	51.1	5883.77	5872.47	39.8	NE	5883.77	NE	10.2 +					
02691	MW	5934.78	1.1	18.3	5933.68	5916.48	1.1	NE	5933.68	NE	7.4 +					
02791	MW	5954.34	8.0 (7.8-12.9)	15.9	5946.34	5938.44										
02891	MW	5953.09	9.1	14.9	5943.99	5938.19										
02991	MW	5956.30	15.8 (15.6-16.9)	57.9	5940.50	5898.40	15.8	50.1	5940.50	5906.20	34.3					
03091	MW	5952.88	17.3	56.7	5935.58	5896.18	17.3	50.9	5935.58	5901.98	33.6	50.9	56.7	5901.98	5896.18	5.8
03191	MW	5950.35	21.1	27.4	5929.25	5922.95	21.1	NE	5929.25	NE	6.3 +					
03391	MW	5944.54	10.8 (10.8-12.3)	46.0	5933.74	5898.54	10.8	40.0	5933.74	5904.54	29.2	40.0	46.0	5904.54	5898.54	6.0
03491	MWA	5940.44	4.9	12.9	5935.54	5927.54										
03591	MW	5949.02	30.1	37.7	5918.92	5911.32										

TABLE A-3
OU-2 STRATIGRAPHIC DATA

Site Identification		Laramie Sandstone/Siltstone Interval					Laramie Sandstone/Siltstone Interval					Laramie Sandstone/Siltstone Interval				
Site Number	Borehole / Monitor Well Designation	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)
B300390	BH															
B303390	MW															
B303490	MW															
B303590	MW															
B303690	MW															
B303790	BH															
00191	MW															
00291	MW															
00391	MW															
00491	MW															
00591	MWA															
00691	MW															
00791	MW															
00891	MW															
00991	MW															
01091	MWA															
01191	MWA	10.9	13.2	5858.23	5855.93	2.3										
01291	MW															
01391	MW															
01491	MW															
01791	MW															
01891	MW															
01991	MW															
02091	MW															
02191	MW															
02291	MW															
02391	MW															
02491	MW															
02591	MW															
02691	MW															
02791	MW															
02891	MW															
02991	MW															
03091	MW															
03191	MW															
03391	MW															
03491	MWA															
03591	MW															

TABLE A-3
OU-2 STRATIGRAPHIC DATA

Site Identification		@	Depths		Elevations		Arapahoe Sandstone (No.1)					Laramie Sandstone/Siltstone Interval (2)				
Site Number	Borehole / Monitor Well Designation	Ground Level or Concrete Pad Elev.(Ft)	Top of Bedrock (1) (Ft)@	Total Depth (Ft)@	Top of Bedrock (Ft)	Total Depth (Ft)	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)
03691	MW	5932.55	7.5	46.0	5925.05	5886.55	7.5	40.0	5925.05	5892.55	32.5	40.0	46.5	5892.55	5886.05	6.5
03791	MW	5936.80	4.9	54.1	5931.90	5882.70	4.9	48.0	5931.90	5888.80	43.1					
03891	MW	5940.89	7.4	9.0	5933.49	5931.89										
03991	MW	5935.17	37.0 (36.0-37.0)	43.0	5898.17	5892.17										
04091	MW	5928.52	36.0 (34.4-36.0)	42.0	5892.52	5886.52										
04191	MW	5955.58	17.1	25.0	5938.48	5930.58										
04291	MW	5952.50	17.0	30.5	5935.50	5922.00										
04491	MW	5949.51	27.0	33.0	5922.51	5916.51										
04591	MW	5948.69	44.2	50.9	5904.49	5897.79										
04691	MW	5944.70	43.9	50.1	5900.80	5894.60										
04891	MW	5939.20	39.7 (39.1-41.7)	45.8	5899.50	5893.40										
04991*	MW	5936.94	40.2	46.1	5896.74	5890.84	43.6	NE	5893.34	NE	2.5 +					
05091	MW	5937.63	43.5	49.5	5894.13	5888.13										
05191	MW	5938.40	44.8	50.7	5893.60	5887.70										
05291	MW	5941.23	34.7	41.0	5906.53	5900.23										
05391	MW	5940.19	34.7	48.0	5905.49	5892.19	38.5	NE	5901.69	NE	9.5 +					
05691	MW	5947.61	35.2	42.6	5912.41	5905.01	35.2	NE	5912.41	NE	7.4 +					
05991	MW	5908.32	22.1	31.0	5886.22	5877.32						25.0	31.0	5883.32	5877.32	6.0
06091	MW	5930.08	39.1	44.5	5890.98	5885.58										
06191	MW	5919.21	32.0	38.2	5887.21	5881.01										
06291	MW	5897.90	23.3	34.9	5874.60	5863.00										
06391	MW	5903.63	21.2	28.6	5882.43	5875.03										
06491	MW	5671.45	2.2	19.1	5669.25	5652.35										
06591	MW	5978.28	15.4	52.2	5962.88	5926.08										
06691	MW	5978.34	22.0 (20.9-22.0)	28.0	5956.34	5950.34										
06791	MW	5978.87	21.2	28.0	5957.67	5950.87										
06891	MW	5974.14	14.0 (12.4-14.0)	20	5960.14	5954.14										
06991	MW	5972.91	28.6	35.0	5944.31	5937.91										
07091	MWA	5973.39	NE	15.0	NE	5958.39										
07191	MW	5974.79	20.0 (19.3-20.0)	26.0	5954.79	5948.79										
07291	MW	5977.27	20.0 (18.7-20.0)	26.0	5957.27	5951.27										
07391	MW	5949.14	8.1	16.0	5941.04	5933.14										
07491	MWA	5948.41	6.3	12.0	5942.11	5936.41										
07591	MWA	5949.02	8.1	14.0	5940.92	5935.02										
07691	MWA	5935.30	1.4	8.0	5933.90	5927.30										
07891	MW	5957.78	27.5	31.0	5930.28	5926.78										
07991	MW	5954.91	26.0 (24.9-26.0)	36.5	5928.91	5918.41										
08091	MW	5947.90	16.1	22.0	5931.80	5925.90										

TABLE A-3
OU-2 STRATIGRAPHIC DATA

Site Identification		Laramie Sandstone/Siltstone Interval					Laramie Sandstone/Siltstone Interval					Laramie Sandstone/Siltstone Interval				
Site Number	Borehole / Monitor Well Designation	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)
03691	MW															
03791	MW															
03891	MW															
03991	MW															
04091	MW															
04191	MW															
04291	MW															
04491	MW															
04591	MW															
04691	MW															
04891	MW															
04991*	MW															
05091	MW															
05191	MW															
05291	MW															
05391	MW															
05691	MW															
05991	MW															
06091	MW															
06191	MW															
06291	MW															
06391	MW															
06491	MW						7.6	13.6	5663.85	5657.85	6.0					
06591	MW															
06691	MW															
06791	MW															
06891	MW															
06991	MW															
07091	MWA															
07191	MW															
07291	MW															
07391	MW															
07491	MWA															
07591	MWA															
07691	MWA															
07891	MW															
07991	MW															
08091	MW															

TABLE A-3
OU-2 STRATIGRAPHIC DATA

Site Identification		@	Depths		Elevations		Arapahoe Sandstone (No.1)					Laramie Sandstone/Siltstone Interval (2)				
Site Number	Borehole / Monitor Well Designation	Ground Level or Concrete Pad Elev.(Ft)	Top of Bedrock (1) (Ft)@	Total Depth (Ft)@	Top of Bedrock (Ft)	Total Depth (Ft)	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)
08191	MWA	5946.37	37.5	44.0	5908.87	5902.37										
08291	MW	5950.18	14.0 (12.7-14.0)	20.0	5936.18	5930.18										
08391	MW	5947.20	37.2	44.0	5910.00	5903.20										
08491	MW	5950.58	16.0 (14.4-16.0)	22.0	5934.58	5928.58										
08591	MW	5948.57	40.7	48.0	5907.87	5900.57										
08691	BH	5976.85	16.0 (15.0-16.0)	22.0	5960.85	5954.85										
08791	BH	5978.35	20.9	28.0	5957.45	5950.35										
08891	MW	5976.36	23.0	30.0	5953.36	5946.36										
08991	BH	5975.83	28.3	34.0	5947.53	5941.83										
09091	MW	5975.16	24.0 (22.5-24.0)	30.0	5951.16	5945.16										
09191	BH	5973.96	24.0 (23.8-24.0)	30.0	5949.96	5943.96										
09291	BH	5958.46	1.6	56.0	5956.86	5902.46										
09391	BH	5958.63	2.3	10.0	5956.33	5948.63										
09491	BH	5949.55	3.4	10.0	5946.15	5939.55										
09591	BH	5953.02	NE	14.0	NE	5939.02										
09691	MW	5935.64	3.1	20.0	5932.54	5915.64	6.5	12.1	5929.14	5923.54	5.6					
09791	BH	5942.97	13.2	22.4	5929.77	5920.57										
09891	BH	5969.37	13.2 (13.1-14.2)	20.0	5956.17	5949.37										
09991	BH	5967.74	13.1	20.0	5954.64	5947.74										
10191	BH	5957.74	14.5	54.0	5943.24	5903.74	24.6	48.0	5933.14	5909.74	23.4					
10291	BH	5952.90	18.0 (17.0-18.0)	60.0	5934.90	5892.90	18.0	54.3	5934.90	5898.60	36.3	54.3	60.0	5898.60	5892.90	5.7
10391	BH	5949.54	19.5	62.0	5930.04	5887.54	19.5	56.3	5930.04	5893.24	36.8					
10491	BH	5956.85	30.0 (27.1-30.0)	49.0	5926.85	5907.85	30.0	NE	5926.85	NE	19.0 +	44.0	49.0	5912.85	5907.85	5.0
10591	BH	5946.76	12.0 (10.8-12.0)	18.0	5934.76	5928.76										
10691	BH	5941.24	40.2	48.0	5901.04	5893.24										
10791	BH	5945.26	46.0 (45.7-46.0)	50.0	5899.26	5895.26										
10891	BH	5939.55	44.5	50.0	5895.05	5889.55										
10991	MW	5940.01	45.2	56.0	5894.81	5884.01	45.2	50.4	5894.81	5889.61	5.2					
11091	MWA	5673.31	2.8 (2.7-2.8)	8.8	5670.51	5664.51										
11191	MWA	5936.46	40.2	46.2	5896.26	5890.26	43.8	NE	5892.66	NE	2.4 +					
11291*	MW	5930.55	NE	33.9	NE	5896.65										
11391	MWA	5946.01	37.5	66.0	5908.51	5880.01	37.5	57.2	5908.51	5888.81	19.7	57.2	66.0	5888.81	5880.01	8.8
11491*	MW	5948.22	NE	27.9	NE	5920.32										
11591*	MWA	5937.84	10.0	20.0	5927.84	5917.84	19.5	NE	5918.34	NE	0.5 +					
11691*	MW	5938.63	9.5	34.0	5929.13	5904.63	9.5	NE	5929.13	NE	24.5 +					
11791*	MW	5923.29	6.9	15.8	5916.39	5907.49										
11891*	MW	5945.51	12.0	30.0	5933.51	5915.51	12.0	NE	5933.51	NE	18.0 +					
11991	MWA	5938.72	7.2	12.9	5931.52	5925.82										

TABLE A-3
OU-2 STRATIGRAPHIC DATA

Site Identification		Laramie Sandstone/Siltstone Interval					Laramie Sandstone/Siltstone Interval					Laramie Sandstone/Siltstone Interval				
Site Number	Borehole / Monitor Well Designation	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)
08191	MWA															
08291	MW															
08391	MW															
08491	MW															
08591	MW															
08691	BH															
08791	BH															
08891	MW															
08991	BH															
09091	MW															
09191	BH															
09291	BH															
09391	BH															
09491	BH															
09591	BH															
09691	MW															
09791	BH															
09891	BH															
09991	BH															
10191	BH															
10291	BH															
10391	BH															
10491	BH															
10591	BH															
10691	BH															
10791	BH															
10891	BH															
10991	MW															
11091	MWA															
11191	MWA															
11291*	MW															
11391	MWA															
11491*	MW															
11591*	MWA															
11691*	MW															
11791*	MW															
11891*	MW															
11991	MWA															

TABLE A-3
OU-2 STRATIGRAPHIC DATA

Site Identification		@	Depths		Elevations		Arapahoe Sandstone (No.1)					Laramie Sandstone/Siltstone Interval (2)				
Site Number	Borehole / Monitor Well Designation	Ground Level or Concrete Pad Elev.(Ft)	Top of Bedrock (1) (Ft)@	Total Depth (Ft)@	Top of Bedrock (Ft)	Total Depth (Ft)	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)
12091*	MW	5971.59	13.2	24.0	5958.39	5947.59	13.2	NE	5958.39	NE	10.8 +					
12191*	MW	5956.49	15.7	36.9	5940.79	5919.59	15.7	NE	5940.79	NE	21.2 +					
12291*	MW	5970.98	2.0	16.0	5968.98	5954.98	6.0	NE	5964.98	NE	10.0 +					
12391	MW	5940.07	36.5 (34.5-42.1)	76.0	5903.57	5864.07	42.1	65.7	5897.97	5874.37	23.6	65.7	76.0	5874.37	5864.07	10.3
12491	MW	5946.84	30.0 (29.7-30.0)	65.0	5916.84	5881.84	30.0	58.0	5916.84	5888.84	28.0	58.0	65.0	5888.84	5881.84	7.0
12591	MWA	5949.43	20.6	28.0	5928.83	5921.43	24.0	NE	5925.43	NE	4.0 +					
12691	MW	5949.68	20.0 (14.6-20.0)	71.0	5929.68	5878.68	23.1	64.0	5926.58	5885.68	40.9	64.0	71.0	5885.68	5878.68	7.0
12791	BH	5953.25	4.0	10.0	5949.25	5943.25										
12891*	MW	5946.76	37.0	40.6	5909.76	5906.16										
12991	MW	5965.71	16.1	37.0	5949.61	5928.71	33.3	NE	5932.41	NE	3.7 +					
13091*	MW	5973.68	19.5 (19.2-21.5)	28.0	5954.18	5945.68										
13191**	MW	5978.25	15.4 (approx.)	28.9	5962.85	5949.35										
13291**	MW	5978.48	15.4 (approx.)	20.0	5963.08	5958.48										
13391*	MW	5923.83	38.6	41.0	5885.23	5882.83										
13491*	MW	5961.92	29.4 (approx.)	31.0	5932.52	5930.92										
13591*	MW	5965.92	16.0 (approx..)	18.0	5949.92	5947.92										
20091	PWA	5947.03	31.7	57.0	5915.33	5890.03	37.4	52.1	5909.63	5894.93	14.7	52.1	57.0	5894.93	5890.03	4.9
20191	OB	5946.93	33.1	75.0	5913.83	5871.93	37.7	57.0	5909.23	5889.93	19.3	57.0	75.0	5889.93	5871.93	18.0
20291	PW	5947.19	33.1	35.6	5914.09	5911.59										
20391	OBA	5946.96	36.0 (35.2-36.0)	76.6	5910.96	5870.36	39.5	50.4	5907.46	5896.56	10.9					
20491**	OB	5947.23	NE	32.6	NE	5914.63										
20591**	OB	5968.01	24.5 (approx.)	24.6	5943.51	5943.41										
20691**	PW	5968.09	24.5 (approx.)	25.8	5943.59	5942.29										
20791	OB	5967.90	24.5	37.9	5943.40	5930.00										
20891**	PW	5949.85	19.4 (approx..)	64.0	5930.45	5885.85	19.5	64.0	5930.35	5885.85	44.5					
20991	OB	5949.78	19.4	70.0	5930.38	5879.78	19.4	64.0	5930.38	5885.78	44.6	64.0	70.0	5885.78	5879.78	6.0
21091	OB	5948.57	15.0	68.0	5933.57	5880.57	17.0	64.6	5931.57	5883.97	47.6	63.0	68.0	5885.57	5880.57	5.0
21191**	OB	5946.85	31.7 (approx.)	58.0	5915.15	5888.85	37.4	NE	5909.45	NE	20.6 +					
31191	MWA	5878.37	4.7	8.0	5873.67	5870.37										
32691	BH	5962.42	3.3	8.0	5959.12	5954.42	3.3	4.2	5959.12	5958.22						
32991	BH	5949.07	3.8 (2.8-4.0)	8.0	5945.32	5941.07										
33291	BH	5966.85	10.0 (8.8-10.0)	14.8	5956.85	5952.05										
33791	BH	5974.99	16.2	22.0	5958.79	5952.99										
34591	MW	5952.19	8.2	11.3	5943.99	5940.89										
34791	MW	5951.39	8.0	11.0	5943.39	5940.39										
37691	MW	5984.46	16.2	19.0	5968.26	5965.46										
40391	BH	5644.86	16.0	73.0	5628.86	5571.86										
40491	MW	5677.33	10.2	12.3	5667.13	5665.03										

TABLE A-3
OU-2 STRATIGRAPHIC DATA

Site Identification		Laramie Sandstone/Siltstone Interval					Laramie Sandstone/Siltstone Interval					Laramie Sandstone/Siltstone Interval				
Site Number	Borehole / Monitor Well Designation	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)
12091*	MW															
12191*	MW															
12291*	MW															
12391	MW															
12491	MW															
12591	MWA															
12691	MW															
12791	BH															
12891*	MW															
12991	MW															
13091*	MW															
13191**	MW															
13291**	MW															
13391*	MW															
13491*	MW															
13591*	MW															
20091	PWA															
20191	OB															
20291	PW															
20391	OBA															
20491**	OB															
20591**	OB															
20691**	PW															
20791	OB															
20891**	PW															
20991	OB															
21091	OB															
21191**	OB															
31191	MWA															
32691	BH															
32991	BH															
33291	BH															
33791	BH															
34591	MW															
34791	MW															
37691	MW															
40391	BH															
40491	MW															

TABLE A-3
OU-2 STRATIGRAPHIC DATA

Site Identification		@	Depths		Elevations		Arapahoe Sandstone (No.1)					Laramie Sandstone/Siltstone Interval (2)				
Site Number	Borehole / Monitor Well Designation	Ground Level or Concrete Pad Elev.(Ft)	Top of Bedrock (1) (Ft)@	Total Depth (Ft)@	Top of Bedrock (Ft)	Total Depth (Ft)	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)
40591	BH	5775.62	11.6	186.0	5764.02	5589.62										
40691	BH	5679.65	6.0 (2.9-6.0)	103.0	5673.65	5576.65										
40791	MW	5708.51	7.0 (6.2-7.0)	10.0	5701.51	5698.51										
41591	MW	5725.54	11.0 (8.8-11.0)	13.5	5714.54	5712.04										
41691	MW	5643.95	14.7	17.4	5629.25	5626.55										
42792	BH	5982.25	20.4	44.3	5961.85	5937.95	20.4	35.6	5961.85	5946.65	15.2					
42892	BH	5984.13	7.0	159.6	5977.13	5824.53										
46692	MW	5956.20	24.5 (approx.)	90.1	5931.70	5866.07										
46792	MW	5956.30	24.5 (22..5-25.0)	118.8	5931.80	5837.50	30.1	35.0	5926.20	5921.30	4.9					
46892	MW	5956.70	24.5 (approx.)	165.2	5932.20	5791.50										
21193	BH	5948.70	7.0	160.2	5941.70	5788.50	19.6	62.3(e)	5929.10	5886.40	42.7	67.5	74.5	5881.20	5874.20	7.0
21293	BH	5946.18	8.8	148.8	5937.38	5797.38	16.7	17.8	5929.48	5928.38	1.1	48.0	65.2	5898.18	5880.98	17.2
21393	BH	5960.78	8.6	209.8	5952.18	5750.98	12.5	39.2	5948.28	5921.58	26.7	51.1	71.9	5909.68	5888.88	20.8
21493	BH	5883.60	21.1	130.4	5862.50	5753.20										
21593	BH	5969.35	12.7	175.0	5956.65	5794.35										
21693	BH	5955.17	15.6	163.0	5939.57	5792.17	19.4	48.1	5935.77	5907.07	28.7	57.5	64.9	5897.67	5890.27	7.4
21793	BH	5967.69	13.2	50.1	5954.49	5917.59										
21893	BH	5953.82	13.2	50.0	5940.62	5903.82	20.2	23.1	5933.62	5930.72	2.9	41.0	NE	5912.82	NE	9.0+
21993	MWA	5948.00	8.0 (6.2-9.0)	66.6	5940.00	5881.40	18.6	62.1	5929.40	5885.90	43.5	66.0	NE	5882.00	NE	0.6+
22093*	MW	5945.00	8.0 (0.0-13.0)	67.5	5937.00	5877.50						49.1	NE	5895.90	NE	15.2+
22193*	MW	5960.90	8.6 (0.0-38.1)	59.7	5952.30	5901.20	12.5(e)	37.0(e)	5948.40	5923.40	24.5(e)	50.4	NE	5910.50	NE	3.4+
22293*	MW	5881.50	21.0 (approx.)	84.5	5860.50	5797.00										
22393*	MW	5969.30	12.7 (approx.)	121.0	5956.60	5848.30										
22493	MWA	5955.36	15.6 (approx.)	52.3	5939.76	5903.06										
22593*	MW	5947.60	7.0 (0.0-60.0)	99.5	5940.60	5849.10	19.0(e)	60.7	5928.60	5886.90	41.7(e)	62.0	69.0(e)	5885.60	5878.60	7.0
23193*	MW	5948.20	8.0 (approx.)	77.0	5940.20	5871.20	20.0(e)	65.0	5928.20	5883.20	45(e)	65.5	72.7	5882.70	5875.50	7.2
23293*	MW	5955.60	15.5 (approx.)	89.5	5940.10	5866.10	24.0(e)	44.5(e)	5931.60	5911.10	20.5(e)	58.0(e)	65.0(e)	5897.60	5890.60	7.0

TABLE A-3
OU-2 STRATIGRAPHIC DATA

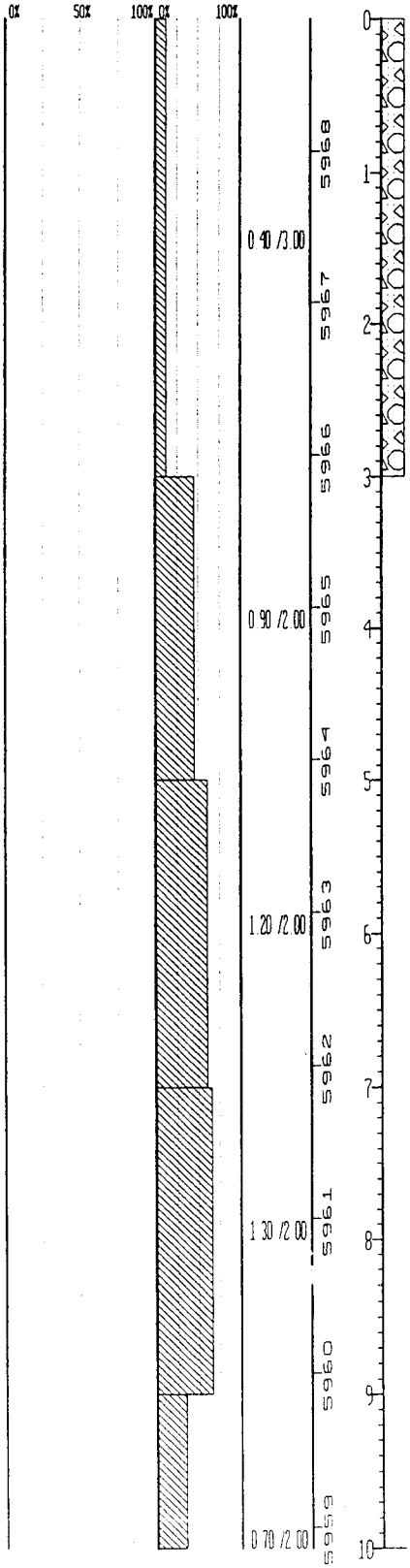
Site Identification		Laramie Sandstone/Siltstone Interval					Laramie Sandstone/Siltstone Interval					Laramie Sandstone/Siltstone Interval				
Site Number	Borehole / Monitor Well Designation	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)	Depth to Top (Ft)@	Depth to Bottom (Ft)@	Top Elevation (Ft)	Bottom Elevation (Ft)	Total Thickness (Ft)
40591	BH															
40691	BH															
40791	MW															
41591	MW															
41691	MW	77.2	86.7	5566.75	5557.25	9.5										
42792	BH	81.4	85.1	5900.85	5897.15	3.7										
42892	BH											140.7	161.7	5843.43	5822.43	21.0
46692	MW															
46792	MW															
46892	MW															
21193	BH	85.5	95.7	5863.20	5853.00	10.2										
21293	BH	69.4	88.6	5876.78	5857.58	19.2	100.5	116.5	5845.68	5829.68	16.0	117.7	144.5	5828.48	5801.68	26.8
21393	BH	94.0	107.5	5866.78	5853.28	13.5						135.8	159.1	5824.98	5801.68	23.3
21493	BH	21.1	39.8	5862.50	5843.80	18.7	47.7(e)	52.4	5835.90	5831.20	4.7	67.3	96.6	5816.30	5787.00	29.3
21593	BH	110.3	111.5	5859.05	5857.85	1.2						146.0	157.0	5823.35	5812.35	11.0
21693	BH	78.6	87.8	5876.57	5867.37	9.2	110.8	111.9	5844.37	5843.27	1.1					
21793	BH															
21893	BH															
21993	MWA															
22093*	MW															
22193*	MW															
22293*	MW	21.0(e)	37.6(e)	5860.50	5843.90	16.6	39.6	43.3	5841.90	5838.20	3.7	55.7	NE	5825.80	NE	28.8+
22393*	MW	100.0	114.5	5869.30	5854.80	14.5										
22493	MWA															
22593*	MW	84.5	97.4	5863.10	5850.20	12.9										
23193*	MW															
23293*	MW	79.5	NE	5876.10	NE	10.0+										

APPENDIX A4
OU-2 BOREHOLE LITHOLOGY AND MONITORING WELL CONSTRUCTION LOGS

A4.1
OU-2 PHASE II ALLUVIAL/BEDROCK BOREHOLE LITHOLOGY AND MONITORING WELL CONSTRUCTION LOGS

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 34.0	GROUND ELEVATION (FT): 5968.86	PROJECT NUMBER: OU2RI	LOG OF BORING NUMBER:
NORTH: 749237.49	AREA: 903 PAD	CASING DIAMETER (IN): 2.0	GEOLOGIST: J.P. O'BRIEN	00191
EAST: 2086144.04	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 02/14/92	

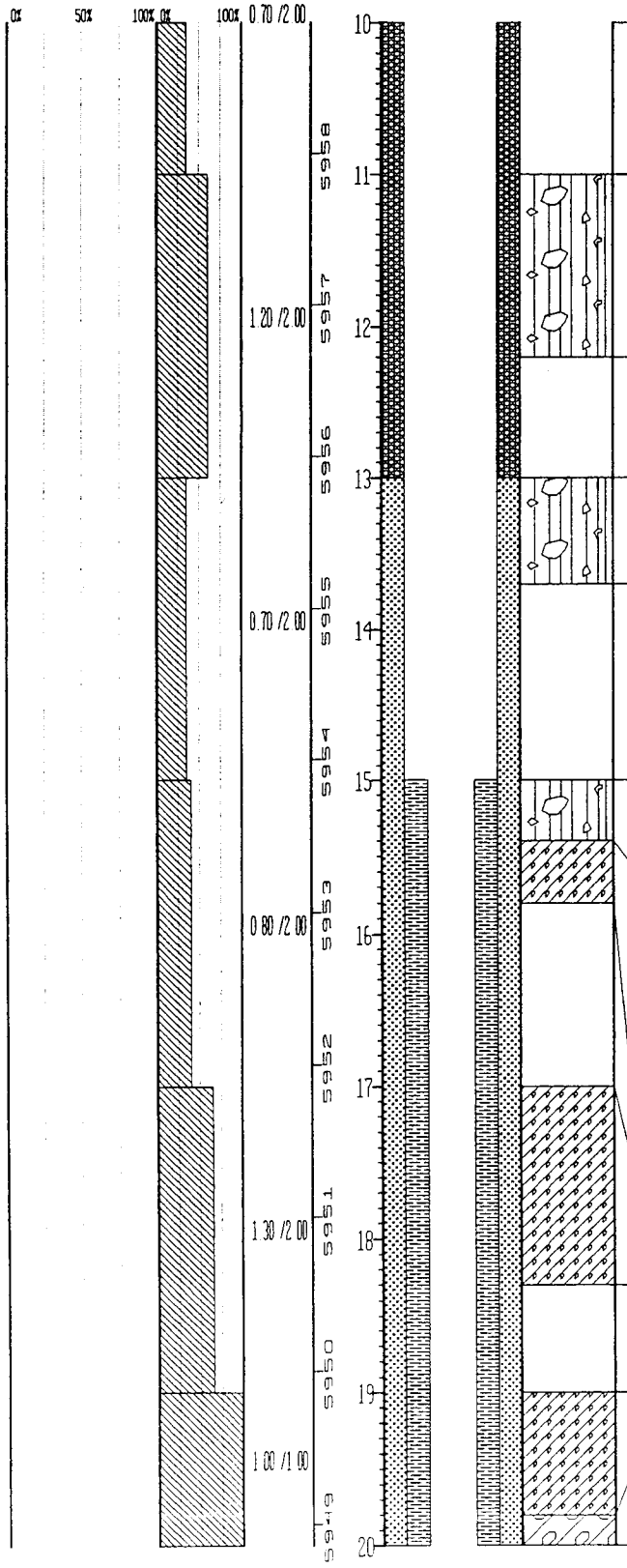
REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 13.0 FT. - 10.0 FT. BACKFILL MATERIAL: BENTONITE 34.0 FT. - 27.0 FT.



	Top soil, start of boring at 0.90 ft.
GM	Sandy Gravel with some silt and clay - grayish brown (5YR3/2), maximum gravel diameter .2', average .09', fine- to coarse-grained sand, well graded, gravel is rounded, sand is angular to sub-angular, low plasticity, gravel is primarily quartzite with trace granite, sand contains abundant quartz, some carbonaceous/organic material, rock fragments, feldspar trace calcrete/caliche, no apparent bedding, moist. 61% gravel, 18% sand, 15% silt, 6% clay.
	No recovery for this interval.
GM	Sandy Gravel with some silt and clay - grayish brown (5YR3/2), as described above.
GC	Sandy Gravel with some clay - pinkish gray (5YR8/1), maximum gravel diameter .15', average .1', fine- to coarse-grained sand, well graded, gravel is rounded, sand is angular to sub-rounded, low to moderate plasticity, gravel is primarily caliche coated quartzite, sand contains abundant calcrete/caliche, quartz, some rock fragments, dark minerals, trace iron stain, no apparent bedding, moist. 56% gravel, 31% sand, 5% silt, 8% clay.
	No recovery for this interval.
GC	Sandy Gravel with some clay - pinkish gray (5YR8/1), as described above.
SC	Gravelly Sand with some clay and silt - light brown (5YR5/6) to very pale orange (10YR8/2) where abundant caliche at 5.4-5.8', maximum gravel diameter .13', average .09', fine- to coarse-grained sand, well graded, gravel is well rounded, sand is angular to sub-angular, low to moderate plasticity, gravel primarily quartzite with some silty arkosic arenite, sand contains abundant quartz, some rock fragments, feldspar iron staining, trace dark minerals, calcrete, mica, no apparent bedding, moist. 33% gravel, 40% sand, 7% silt, 20% clay.
	No recovery for this interval.
GM	Sandy Gravel with some silt and clay - moderate brown (5YR4/4) to very pale orange (10YR8/2) where abundant caliche at 7.0-7.7', maximum gravel diameter > .25', average .12', fine- to coarse-grained sand, well graded, sub-angular to sub-rounded, low plasticity, gravel is primarily quartzite, sand contains abundant quartz, some rock fragments, iron stain, feldspar, dark minerals, trace calcrete, mica, no apparent bedding, moist. 45% gravel, 30% sand, 14% silt, 11% clay.
	No recovery for this interval.
GM	Sandy Gravel with some silt and clay - moderate brown (5YR4/4) to very pale orange (10YR8/2) where abundant caliche at 7.0-7.7', as described above.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 34.0	GROUND ELEVATION (FT):	5968.86	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749237.49	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	00191
EAST:	2086144.04	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/14/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 13.0 FT. - 10.0 FT. BACKFILL MATERIAL: BENTONITE 34.0 FT. - 27.0 FT.



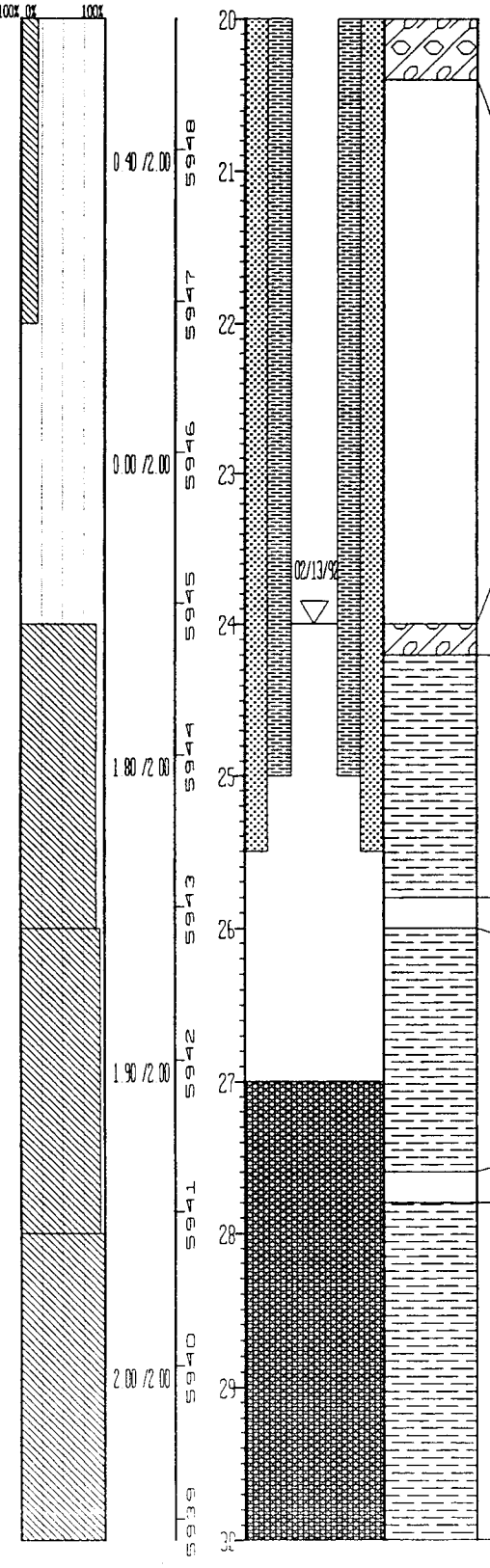
UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	No recovery for this interval.
GM	Sandy Gravel with some silt and clay - moderate brown (5YR4/4) to very pale orange (10YR8/2) where abundant caliche at 7.0-7.7', as described above.
	No recovery for this interval.
GM	Sandy Gravel with some silt and clay - moderate brown (5YR4/4) to very pale orange (10YR8/2) where abundant caliche at 7.0-7.7', as described above.
	No recovery for this interval.
GM	Sandy Gravel with some silt and clay - moderate brown (5YR4/4) to very pale orange (10YR8/2) where abundant caliche at 7.0-7.7', as described above.
SC/gc	Gravelly Sand/Sandy Gravel with some clay - light brown (5YR6/4) to moderate brown (5YR4/4), maximum gravel diameter .22', average .09', fine- to coarse-grained sand, well graded, angular to sub-rounded, low plasticity, gravel is primarily quartzite with some granite, sand contains abundant quartz, some rock fragments, dark minerals, iron and limonite stain, trace calcrete, mica, no apparent bedding, fractured clast of weathered granite at 17.1', moist to very moist. 40% gravel, 40% sand, 5% silt, 15% clay.
	No recovery for this interval.
SC/gc	Gravelly Sand/Sandy Gravel with some clay - light brown (5YR6/4) to moderate brown (5YR4/4), as described above.
	No recovery for this interval.
SC/gc	Gravelly Sand/Sandy Gravel with some clay - light brown (5YR6/4) to moderate brown (5YR4/4), as described above.
GC/gp	Gravel with some sand and clay - light brown (5YR6/4), maximum gravel diameter > .25', average > .25', fine- to medium-grained

STATE PLANE COORDINATE		TOTAL DEPTH (FT): 34.0	GROUND ELEVATION (FT):	5968.86	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749237.49	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	00191
EAST:	2086144.04	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED	02/14/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 13.0 FT. - 10.0 FT. BACKFILL MATERIAL: BENTONITE 34.0 FT. - 27.0 FT.

TH DEPTH | CHEMICAL SAMPL GRADATIONAL S | SAMPLE NUMBER

SAMPLE GRAIN SIZE (0% – 50%) | PERCENT RECOVERY (100% 0% – 100%) | RECOVERY/INTERVAL | DATUM (FT) | DEPTH (FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION



Unified Soils Classification or Rock Type	Description
	sand, poorly graded, sub-rounded, low plasticity, gravel is primarily quartzite, sand contains abundant quartz, some iron stain, rock fragments, trace dark minerals, limonite stain, no apparent bedding, wet. 80% gravel, 10% sand, 2% silt, 8% clay. No recovery for this interval.
GC/gp	Gravel with some sand and clay - light brown (5YR6/4), as described above. Top of bedrock at 24.2'.
CLAYSTONE	Claystone with some sand - light olive gray (5Y5/2) to olive gray (5Y4/1), very fine-grained, very well sorted, sub-rounded, approximately 2% porosity, argillaceous cement, slightly to non friable, abundant quartz, trace dark minerals/rock fragments, iron nodules at 29.5-29.9', vertically alligned carbonaceous material (plant stems?) at 28.7-29.0', trace carbonaceous material throughout, some iron staining, moist. 8% sand, 5% silt, 87% clay.
	No recovery for this interval.
CLAYSTONE	Claystone with some sand - light olive gray (5Y5/2) to olive gray (5Y4/1), as described above.
	VOA sample obtained from this interval.
CLAYSTONE	Claystone with some sand - light olive gray (5Y5/2) to olive gray (5Y5/2), as described above.

BH00569W032

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 34.0	GROUND ELEVATION (FT):	5968.86	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749237.49	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	00191
EAST:	2086144.04	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/14/92	

REMARKS: HOLLOW-STEM AUGER BENTONITE SEAL 13.0 FT - 10.0 FT. BACKFILL MATERIAL: BENTONITE 34.0 FT - 27.0 FT.

TH
DEPTH

CHEMICAL SAMPT
GRADATIONAL S

SAMPLE NUMBER

SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
0% 50%	100% 0% 100%	2.00 /2.00	5938	30				
			5937	31				
		2.00 /2.00	5936	32				
			5935	33				
			5934	34				Total depth at 34.0 ft.
			5933	35				
			5932	36				
			5931	37				
			5930	38				
			5929	39				
				40				

STATE PLANE COORDINATE		TOTAL DEPTH (FT): 58.0	GROUND ELEVATION (FT):	5966.17	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749196.59	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	00291
EAST:	2086623.00	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/10/92	

REMARKS: HOLLOW-STEM AUGER BENTONITE SEAL 42.4 FT - 38.8 FT BACKFILL MATERIAL: BENTONITE 58.0 FT - 56.0 FT.

CHEMICAL SAMPLE TH
GRADATIONAL SAMP
SAMPLE NUMBER

SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
0% 50% 100%	0% 100%	1.80 /0.90	5966	0				Top soil, start of boring at 0.90 ft.
							GM	Sandy Gravel with some silt - grayish brown (5YR3/2), maximum gravel diameter .14', average .06', fine- to coarse-grained sand, well graded, gravel is rounded, sand is angular to sub-angular, low plasticity, gravel is primarily quartzite with some calcrete nodules, sand contains abundant quartz, carbonaceous/organic material, some rock fragments, mica, iron stain, feldspar, no apparent bedding, moist. 51% gravel, 27% sand, 17% silt, 2% clay
		0.70 /1.40	5965	1				No recovery for this interval.
			5964	2			SC	Gravelly sand with abundant clay - very pale orange (10YR8/2) maximum gravel diameter > .25', average .09', fine- to coarse-grained sand, well graded, angular to sub-angular, low plasticity, gravel is primarily quartzite and calcrete, sand contains abundant calcrete/caliche, quartz, some rock fragments, trace mica, dark minerals, bedded calcrete nodules and poorly developed paleosoil horizon at 2.8', dry to slightly moist. 29% gravel, 40% sand, 3% silt, 28% clay
		0.90 /2.00	5963	3				No recovery for this interval
			5962	4			GM	Sandy Gravel with some silt and clay - light brown (5YR5/6), maximum gravel diameter > .25', average .11', fine- to coarse-grained sand, well graded, gravel is rounded, sand is angular to sub-rounded, low plasticity, gravel is primarily quartzite, sand contains abundant quartz, some iron stain, caliche/calcrete, rock fragments, dark minerals, feldspar, trace mica, no apparent bedding, moist. 50% gravel, 36% sand, 8% silt, 6% clay
		1.00 /2.00	5961	5				No recovery for this interval
			5960	6			GM	Sandy Gravel with some silt and clay - light brown (5YR5/6), as described above.
								No recovery for this interval
		0.90 /1.70	5959	7			SM	Gravelly Sand with some silt and clay - moderate yellowish brown (10YR5/4), maximum gravel diameter .19', average .08', sand is fine- to coarse- grained, well graded, angular to sub-rounded, low plasticity, gravel is primarily quartzite and calcrete, sand contains abundant quartz, some rock fragments, feldspar, iron stain, calcrete/caliche, trace dark minerals, mica, very thinly bedded caliche at 8.2-8.6', dark blotches of product (petroleum?) which coats grains but can be scratched off were noted at 8.4-8.5', a sample was sent to a lab for analysis (BH00574WCU2), moist. 32% gravel, 52% sand, 9% silt, 7% clay
			5958	8				
BH00574WCU2		0.60 /2.00	5957	9				No recovery for this interval
				10				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 58.0	GROUND ELEVATION (FT):	5966.17	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749196.59	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	00291
EAST:	2086623.00	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/10/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 42.4 FT. - 38.8 FT. BACKFILL MATERIAL: BENTONITE 58.0 FT. - 56.0 FT.

TH DEPTH | CHEMICAL SAMPT GRADATIONAL S. | SAMPLE NUMBER | SAMPLE GRAIN SIZE (0% 50%) | PERCENT RECOVERY (100% 0% 100%) | RECOVERY/INTERVAL | DATUM(FT) | DEPTH(FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION

RECOVERY/INTERVAL	DATUM(FT)	DEPTH(FT)	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	5956	10	SM	Gravelly Sand with some silt and clay - moderate yellowish brown (10RY5/4), as described above, clasts of sandy clay - yellowish gray (5Y7/2) at 10.2', increased clay content at 10.4-10.7'
1.30 /2.00	5955	11		No recovery for this interval.
	5954	12	GM/gw	Sandy Gravel with some silt - moderate brown (5YR4/4), maximum gravel diameter > 25', average 1', very fine- to coarse-grained sand, well graded, gravel is well rounded, sand is angular to sub-angular, low plasticity, gravel is primarily quartzite, sand contains abundant quartz, some iron stain, rock fragments, dark minerals, trace calcrete, feldspar, no apparent bedding, moist 65% gravel, 24% sand, 7% silt, 4% clay
1.20 /2.00	5953	13		No recovery for this interval.
	5952	14	GM/gw	Sandy Gravel with some silt - moderate brown (5YR4/4), as described above, clasts of reworked bedrock at 15.9'
1.10 /2.00	5951	15		No recovery for this interval Top of bedrock at 16.0 ft
	5950	16	SANDY CLAYSTONE	Sandy Claystone with some silt - dark yellowish orange (10YR6/6) to very pale orange (10YR8/2), as described below, rip-up clast of sandstone at 16.5'
				No recovery for this interval.
0.50 /2.00	5949	17	SANDY CLAYSTONE	Sandy Claystone with some silt - dark yellowish orange (10YR6/6) to very pale orange (10YR8/2), very fine- to medium-grained sand, well sorted, sub-rounded to rounded, approximately 9% porosity, argillaceous cement, moderately to highly friable, abundant quartz, some rock fragments, iron staining, trace feldspar, dark minerals, mica, thinly bedded to thinly laminated, some ripple laminations and convolute bedding, manganese oxide along bedding planes, iron staining at 18.2' and 22.1', rip-up clast of sandstone at 16.5', moist 36% sand, 16% silt, 48% clay
	5948	18		
				VOA sample obtained from this interval
0.70 /2.00	5947	19	SANDY CLAYSTONE	Sandy Claystone with some silt - dark yellowish orange (10YR6/6) to very pale orange (10YR8/2), as described above, increased sand content at 18.6-20.5'
				No recovery for this interval
		20		

BH00562WC02

STATE PLANE COORDINATE	TOTAL DEPTH (FT): 58.0	GROUND ELEVATION (FT): 5966.17	PROJECT NUMBER: OU2RI	LOG OF BORING NUMBER:
NORTH: 749196.59	AREA: 903 PAD	CASING DIAMETER (IN): 2.0	GEOLOGIST: J.P. O'BRIEN	00291
EAST: 2086623.00	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 02/10/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 42.4 FT. - 38.8 FT. BACKFILL MATERIAL: BENTONITE 58.0 FT - 56.0 FT.

TH EPTH	CHEMICAL SAMPL GRADATIONAL SI	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/ INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
						5946	20			SANDY CLAYSTONE	Sandy Claystone with some silt - dark yellowish orange (10YR6/6) to very pale orange (10YR8/2), as described above.
					1.10 /2.00	5945	21				No recovery for this interval.
						5944	22			SANDY CLAYSTONE	Sandy Claystone with some silt - dark yellowish orange (10YR6/6) to very pale orange (10YR8/2), as described above.
					0.40 /2.00	5943	23				No recovery for this interval
						5942	24			SANDY CLAYSTONE	Sandy Claystone with some silt - dark yellowish orange (10YR6/6) to very pale orange (10YR8/2), as described above
					0.70 /2.00	5941	25				No recovery for this interval
						5940	26				
					0.00 /2.00	5939	27	02/06/92 ▽		SANDY CLAYSTONE	Sandy Claystone with some silt - dark yellowish orange (10YR6/6), very fine- to medium-grained, moderately sorted, rounded to well-rounded, approximately 15% porosity, highly friable, abundant quartz, some iron staining, rock fragments, dark minerals, gray silty clay nodules throughout, sandstone rip-up clasts with iron stain at 28.3', saturated 41% sand, 15% silt, 44% clay
						5938	28				
					2.00 /2.00	5937	29			SANDY CLAYSTONE	Sandy Claystone with some silt - light olive gray (5Y6/1), as described below
											VCA sample obtained from this interval
							30				

EH0056-4002

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 58.0	GROUND ELEVATION (FT):	5966.17	PROJECT NUMBER:	002RI
NORTH: 749196.59	AREA 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST: 2086623.00	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/10/92

LOG OF BORING NUMBER: 00291

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 42.4 FT. - 38.8 FT. BACKFILL MATERIAL: BENTONITE 58.0 FT. - 56.0 FT.

CHEMICAL SAMPLES	GRADATIONAL S	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			0% 50% 100%	0% 100%						SANDY CLAYSTONE	Sandy Claystone with some silt - light olive gray (5Y6/1), as described below.
					0.90 /2.00	5936	30				
						5935	31				No recovery for this interval.
						5934	32			SANDY CLAYSTONE	Sandy Claystone with some silt - light olive gray (5Y6/1) to dark yellowish orange (10YR6/6) where iron stained, very fine- to fine-grained, well sorted, sub-rounded to rounded, approximately 10% porosity, argillaceous cement, highly friable, abundant quartz, some iron staining, feldspar, dark minerals, trace limonite stain, mica, iron nodules at 29.0', 29.6', iron stained at 30.0-30.6' and 33.5-34.0', heavily iron stained along laminea at 33.9', thinly to thickly laminated with faint ripple laminations at 28.7-29.0' and 30.0-32.7', laminations inclined >= 3 degrees at 32.7', increased clay content at 30.0-30.6', increased sand content at 32.7-32.9', fossil leaf casts with dendrite pattern at 35.0, increased clay content at 35.0-36.0', angular clay rip-up clast at 35.1', saturated. 31% sand, 18% silt, 51% clay
					2.00 /2.00	5933	33				
						5932	34				
					2.00 /2.00	5931	35				
						5930	36			CLAYEY SANDSTONE	Clayey Sandstone with some silt - medium light gray (N6) to medium gray (N5), very fine- to fine-grained, well sorted, rounded, approximately 12% porosity, argillaceous cement, highly friable, abundant quartz, some dark minerals, trace limonite stain, laminea inclined at 16 degrees at 36.5-37.5', plant fragments replaced by iron staining at 38.2', carbonaceous material throughout, saturated. 48% sand, 8% silt, 44% clay.
					1.50 /2.00	5929	37				
											No recovery for this interval.
						5928	38			CLAYEY SANDSTONE	Clayey Sandstone with some silt - medium light gray (N6) to medium gray (N5), as described above.
										CLAYEY SANDSTONE	Clayey Sandstone with some silt - yellowish gray (5Y8/1) to light brown (5YR5/6) where iron stained, as described below.
					0.80 /2.00	5927	39				No recovery for this interval.
							40				

STATE PLANE COORDINATE		TOTAL DEPTH (FT): 58.0	GROUND ELEVATION (FT):	5966.17	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749196.59	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	00291
EAST:	2086623.00	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/10/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 42.4 FT. - 38.8 FT. BACKFILL MATERIAL: BENTONITE 58.0 FT - 56.0 FT.

TH DEPTH	CHEMICAL SAMPT GRADATIONAL S	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			0% 50% 100%	0% 100%						CLAYEY SANDSTONE	Clayey Sandstone with some silt - yellowish gray (5Y8/1) to light brown (5YR5/6) where iron stained, very fine- to medium-grained, well sorted, rounded to well rounded, approximately 20% porosity, argillaceous cement, highly friable, abundant quartz, iron staining, some dark minerals, trace rock fragments, iron staining at 38.6-39.0', 41.1-41.6', 44.3-44.7', 45.5-45.7', laminea inclined approximately 20 degrees and trough cross bedding at 40.0-40.7', abundant rip-up clasts of carbonaceous material - fossilized plant stems, reeds, etc. at 40.7-41.5', increased clay content and color change to medium dark gray (N4) at 42.5-42.75', flame structures, convolute bedding and pseudonodules at 44.0-44.4', thinly to moderately laminated at 44.4-45.4', saturated 53% sand, 19% silt, 28% clay
					1.60 /2.00	5926 5925	40 41				
						5924	42				
											No recovery for this interval.
					0.80 /2.00	5923 5922	43 44			CLAYEY SANDSTONE	Clayey Sandstone with some silt - yellowish gray (5Y8/1) to light brown (5YR5/6) where iron stained, as described above
											No recovery for this interval.
					2.00 /2.00	5921 5920	45 46			CLAYEY SANDSTONE	Clayey Sandstone with some silt - yellowish gray (5Y8/1) to light brown (5YR5/6) where iron stained, as described above
					2.00 /2.00	5919 5918	47 48			CLAYEY SANDSTONE	Clayey Sandstone with some silt - medium light gray (N6), very fine- to medium-grained, moderately sorted, sub-rounded to well rounded, approximately 9% porosity, argillaceous cement, highly friable, abundant quartz, some dark minerals, carbonaceous material, trace mica, carbonaceous material throughout, large plant stem at 45.8', thinly laminated sand and clay, ripple laminations with wavelength of .05' and amplitude of .005', pseudonodules, wet to saturated 44% sand, 20% silt, 36% clay
					2.00 /2.00	5917	49			SILTY SANDSTONE	Silty Sandstone with some clay - very pale orange (10YR8/2), very fine- to medium-grained, moderately sorted, rounded to well rounded, approximately 25% porosity, argillaceous cement, highly friable, abundant quartz, some dark minerals, iron nodules (coarse grain size), trace rock fragments, thinly laminated and bedded inclined at <= 20 degrees, slump at 47.3' with 35 degrees decollienent surface, convolute and wispy laminea - some truncated - indicative of ripple lamination, saturated 72% sand, 15% silt, 13% clay
							50			SANDY CLAYSTONE	Sandy Claystone with some silt - light gray (N7), to grayish orange (10YR7/4) where iron stained, very fine- to fine-grained, well sorted, rounded, approximately 8% porosity, argillaceous

STATE PLANE COORDINATE		TOTAL DEPTH (FT): 58.0	GROUND ELEVATION (FT):	5966.17	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749196.59	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	00291
EAST:	2086623.00	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/10/92	

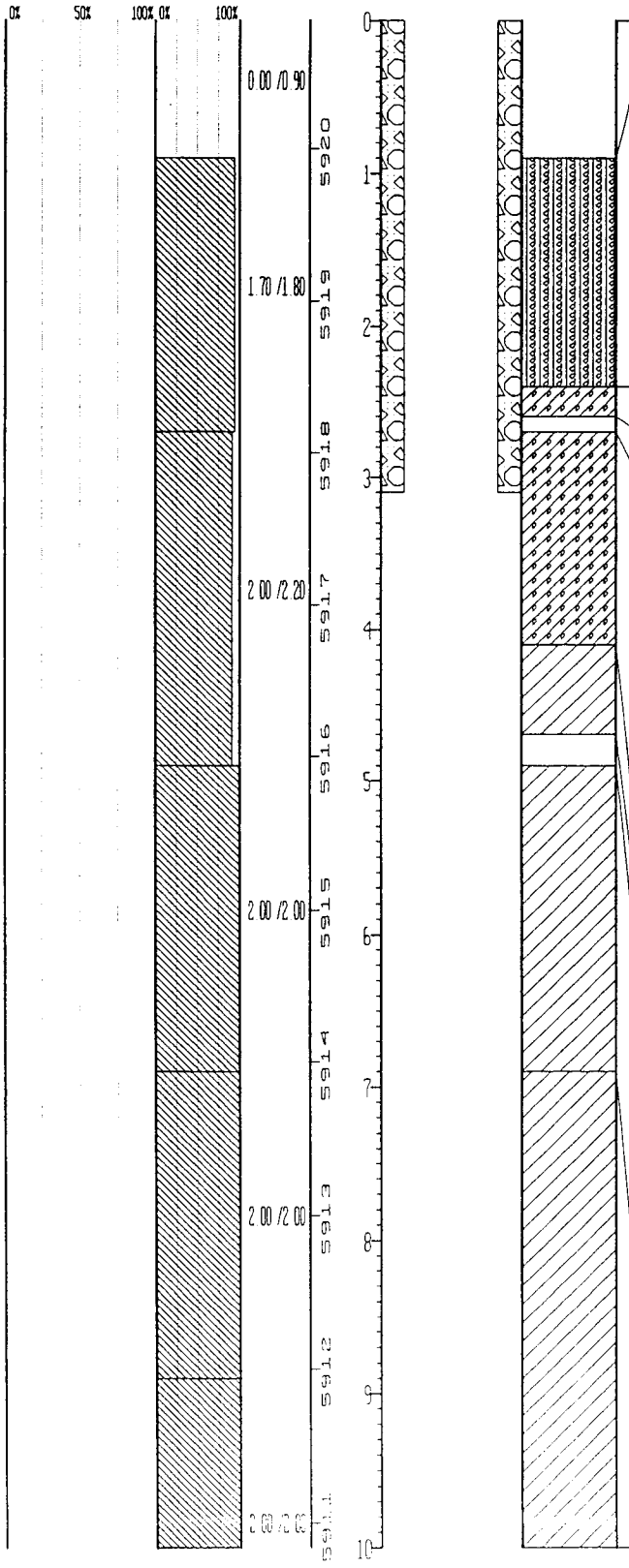
REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 42.4 FT. - 38.8 FT. BACKFILL MATERIAL: BENTONITE 58.0 FT. - 56.0 FT.

TH DEPTH	CHEMICAL SAMP/ GRADATIONAL S	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			0% 50% 100%	0% 100%							cement, slightly friable, abundant quartz, some dark minerals, trace iron staining, limonite stain, iron stain at 48.3-48.8, 50.5-50.7', and 51.0-51.1', micro slump fractures with .01' offset at 49.4', flame structures at 49.2' convolute bedding and increased carbonaceous material at 50.5-51.0', saturated. 28% sand, 11% silt, 61% clay
					1.40 /2.00	5916 5915	50 51			SANDY CLAYSTONE	Conglomerate Bearing Sandy Claystone with some silt - yellowish gray (5Y7/2), as described below.
											No recovery for this interval.
					2.00 /2.00	5914 5913	52 53			SANDY CLAYSTONE	Conglomerate Bearing Sandy Claystone with some silt - yellowish gray (5Y7/2), very fine-grained sand to fine pebbles, very poorly sorted, sub-rounded to well rounded, approximately 20% porosity, argillaceous cement, moderately friable, abundant quartz, some rock fragments, clear quartz, feldspar, trace dark minerals, iron and limonite stain, thinly bedded coal throughout especially at 51.3' dipping 25 degrees-35 degrees, claystone rip-up clasts throughout, saturated. 8% pebbles, 22% sand, 15% silt, 55% clay
					2.00 /2.00	5912 5911	54 55			CLAYSTONE	Claystone with some silt and sand - medium gray (N5) to medium dark gray (N4), as described below.
		BH00565WC02									VOA sample obtained from this interval
					2.00 /2.00	5910 5909	56 57			CLAYSTONE	Claystone with some silt and sand - medium gray (N5) to medium dark gray (N4), very fine-grained, well sorted, sub-rounded, approximately 5% porosity, argillaceous cement, non-friable, abundant quartz, some dark minerals, trace iron stain, thinly laminated-ripple laminated throughout, carbonaceous material - reeds? at 56.7-58.0', possible fossils at 57.0', large flame structures, pseudonodules (sand balls) average .02'x.02', moist to saturated. 9% sand, 10% silt, 81% clay
						5908 5907	58 59 60				Total depth at 58.0 ft

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 26.9	GROUND ELEVATION (FT):	5920.84	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	748886.27	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	00391
EAST:	2086805.24	LOCATOR NUMBER: 613	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/15/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 16.4 FT. - 13.3 FT. BACKFILL MATERIAL: BENTONITE 26.9 FT. - 23.8 FT.

TH DEPTH | CHEMICAL SAMP GRADATIONAL S | SAMPLE NUMBER | SAMPLE GRAIN SIZE (0% 50% 100%) | PERCENT RECOVERY (0% 100%) | RECOVERY/INTERVAL | DATUM (FT) | DEPTH (FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION



Top soil, start of boring at 0.90 ft.

SM: Silty Sand with some clay - grayish black (N2), medium- to fine-grained sand, gravel up to 1/2" diameter, poorly graded, sub-angular, low to medium plasticity, dominant lithology sand clear quartz with some dark minerals and rock fragments, trace mica, gravel primarily granite, trace caliche coating on gravels and throughout interval, trace iron staining throughout interval, increase iron staining at 2.2-2.4', no apparent bedding, dry to moist, abundant roots, clay like appearance.
1% gravel, 73% sand, 16% silt, 10% clay.

SC: Clayey Sand with some silt - pale olive (10Y6/2), as described below.

No recovery for this interval.

SC: Clayey Sand with some silt - pale olive (10Y6/2), very fine-grained sand, gravel maximum size 1/2" diameter, average 1/4" diameter, poorly graded, sub-angular, low plasticity, dominant lithology of sand clear quartz with trace mica, dark minerals and K-spar, some iron staining on grains, trace iron staining throughout interval, gravel primarily granite and quartzite, some caliche clasts, trace carbonaceous material throughout, trace mangenese staining throughout interval, increase in iron staining at 3.4-3.7' and increase in caliche at 4.0-4.1', no apparent bedding, moist, trace roots, bedrock appearance.
2% gravel, 48% sand, 13% silt, 37% clay.

CL: Sandy Clay with some gravel - grayish green (5G5/2), as described below.

No recovery for this interval.

CL: Sandy Clay with some gravel - grayish green (5G5/2), medium- to very fine-grained sand, maximum gravel size 1/2" diameter average size 1/4" diameter, poorly graded, sub-angular, medium plasticity, dominant lithology sand clear quartz with trace mica, dark minerals and granite rock fragments, some iron staining on grains, gravel primarily granite and quartzite, some caliche clasts and iron staining throughout interval, no apparent bedding, moist to very moist, trace roots, bedrock appearance.
5% gravel, 32% sand, 3% silt, 60% clay.

CL: Sandy Clay with some gravel - light olive brown (5Y5/6), coarse- to very fine-grained sand, maximum gravel size 1 1/2" diameter, average size 1/2", poorly graded, sub-angular, medium plasticity, dominant lithology sand clear quartz with some dark minerals, trace mica and K-spar, abundant iron staining on grains, gravel primarily granite and quartzite, some iron staining throughout interval, trace carbonaceous material, iron nodules with mangenese

STATE PLANE COORDINATE		TOTAL DEPTH (FT) 26.9	GROUND ELEVATION (FT) 5920.84	PROJECT NUMBER 0U2RI	LOG OF BORING NUMBER
NORTH	748886.27	AREA 903 PAD	CASING DIAMETER (IN) 2.0	GEOLOGIST L.A. GUST	00391
EAST	2086805.24	LOCATOR NUMBER 613	BOREHOLE DIAMETER (IN) 10.0	DATE DRILLED 10/15/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 16.4 FT. - 13.3 FT. BACKFILL MATERIAL: BENTONITE 26.9 FT. - 23.8 FT.

CHEMICAL SAMPT	GRADATIONAL S	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			0% 50% 100%	0% 100%							staining at 14.1', increase in iron staining at 8.9-14.8', sand lense at 8.7-8.8' and 11.3-11.5', no apparent bedding, moist to very moist, bedrock appearance 10% gravel, 22% sand, 17% silt, 61% clay
					2.00/2.00	5910	11				
					2.00/2.00	5909	12				
						5908	13				
					2.00/2.00	5907	14				
						5906	15			SM	Silty Sand - dark yellowish orange (10YR6/6), fine- to very fine-grained sand, gravel maximum size 1/2" diameter, average 1/4" diameter, poorly graded, sub-angular, low plasticity, dominant lithology sand clear quartz with trace mica and dark minerals, abundant iron staining on grains, gravel primarily quartzite and granite with trace limonite nodules with mangenese staining, abundant iron staining throughout interval and trace carbonaceous material, massive, no apparent bedding, wet, gravel at 16.7', bedrock appearance. 4% gravel, 69% sand, 19% silt, 8% clay Top of bedrock at 16.9 ft
					2.00/2.00	5905	16				
						5904	17			SANDY CLAYSTONE	Sandy Claystone with interbedded sandstone lenses - dusky yellow (5Y6/4), very fine-grained sand, well sorted, sub-angular, approximately 20% porosity, moderately friable, argillaceous cement, dominant lithology sand clear quartz with some dark minerals and trace mica and K-spar, some iron staining on grains, trace carbonaceous throughout interval, abundant carbonaceous material at 18.5-18.7', some banded iron staining throughout, massive, no apparent bedding or fractures, saturated, sandstone lense at 18.0'-18.1' and 18.3-18.4', weathered 42% sand, 6% silt, 52% clay
					2.00/2.00	5903	18				
						5902	19				No recovery for this interval
										SANDY CLAYSTONE	Sandy Claystone with interbedded sandstone lenses - dusky yellow (5Y6/4), as described above
					2.00/2.00	5901	20			CLAYEY SANDSTONE	Clayey Sandstone with interbedded claystone lenses - dusky

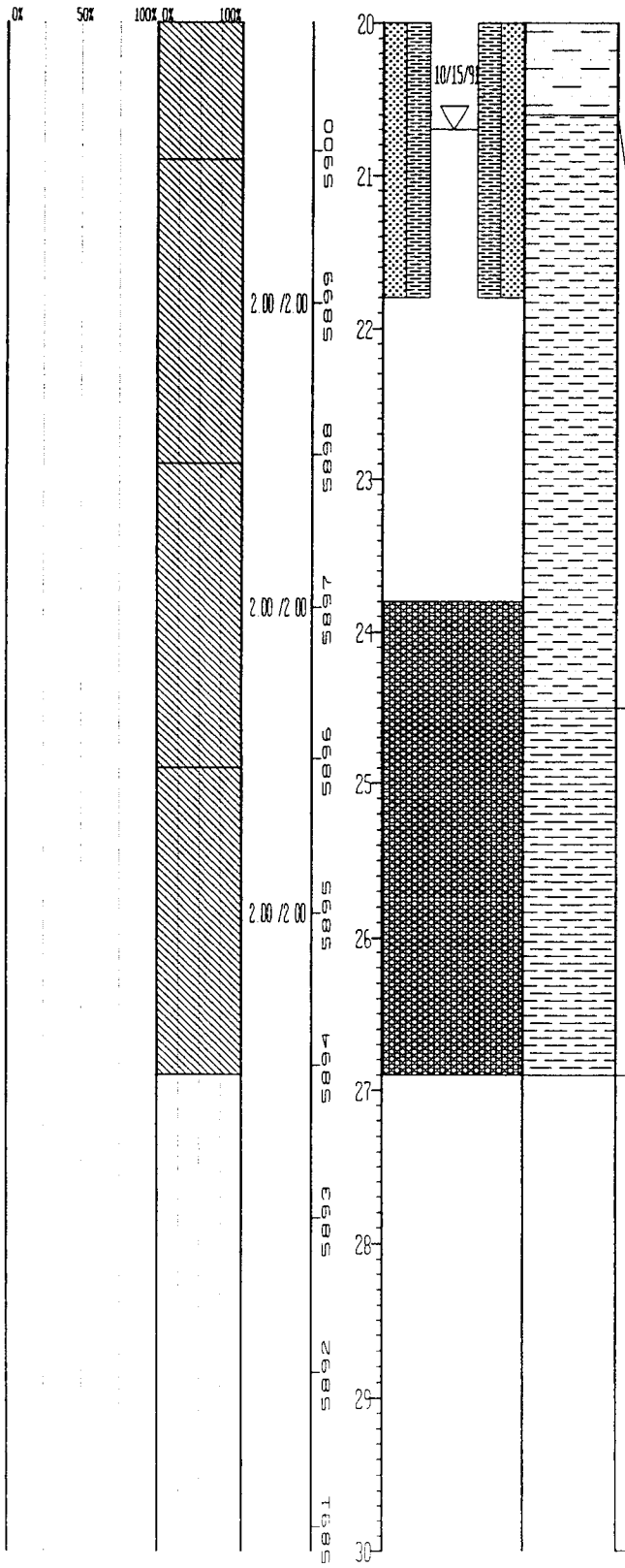
BH00026W002

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 26.9	GROUND ELEVATION (FT):	5920.84	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749886.27	AREA 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	00391
EAST:	2086805.24	LOCATOR NUMBER 613	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/15/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 16.4 FT - 13.3 FT. BACKFILL MATERIAL: BENTONITE 26.9 FT. - 23.8 FT.

CHEMICAL SAMPT / GRADATIONAL S. | SAMPLE NUMBER | DEPTH

SAMPLE GRAIN SIZE (0% – 50% – 100%) | PERCENT RECOVERY (0% – 100%) | RECOVERY/INTERVAL | DATUM (FT) | DEPTH (FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION



yellow (5Y6/4), very fine-grained sand, well sorted, sub-angular, approximately 25% porosity, argillaceous cement, moderately to slightly friable, dominant lithology sand clear quartz with some dark minerals and trace mica, some iron staining on grains, abundant iron staining throughout, trace manganese staining throughout, massive, no apparent bedding or fractures, saturated, weathered. 63% sand, 7% silt, 30% clay

SANDY CLAYSTONE: Sandy Claystone with interbedded sandstone lenses - grayish olive (10Y4/2) to light olive brown (5Y5/6), very fine-grained sand, well sorted, approximately 20% porosity, argillaceous cement, sub-angular, moderately to slightly friable, dominant lithology sand clear quartz with some dark minerals and trace mica and K-spar, some iron staining on grains, some banded iron staining throughout, trace carbonaceous material throughout, no preferred bedding orientation at 21.2-21.7', horizontal and convoluted bedding at 22.7-24.5', vertical fractures healed with iron and manganese at 23.5-24.5', increase in competency at 22.7-24.5', moist, sandstone clasts throughout, weathered 28% sand, 6% silt, 66% clay

CLAYSTONE: Claystone - dark gray (N3), very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, argillaceous cement, non-friable, dominant lithology sand clear quartz with trace dark minerals and mica, trace iron staining on grains, some carbonaceous material, lignitic coal at 24.6-24.8', sand at 26.5-26.9', no apparent bedding or fractures, moist 11% sand, 6% silt, 83% clay

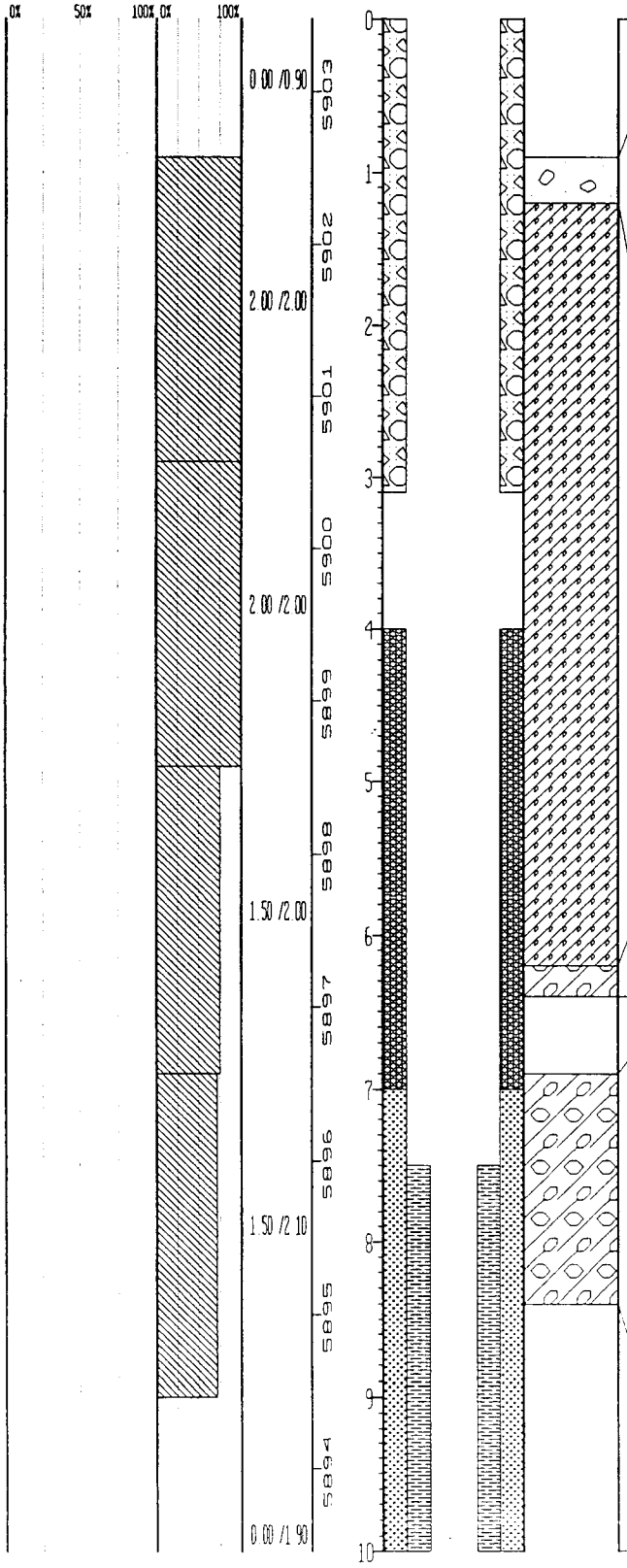
Total depth at 26.9 ft

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 23.3	GROUND ELEVATION (FT):	5903.47	PROJECT NUMBER:	OU2RI
NORTH: 748645.39	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST: 2086806.87	LOCATOR NUMBER: G13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/11/91

LOG OF BORING NUMBER: 00491

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 7.0 FT - 4.0 FT. BACKFILL MATERIAL: BENTONITE 23.3 FT. - 17.5 FT.

TH DEPTH | CHEMICAL SAMPT GRADATIONAL S | SAMPLE NUMBER | SAMPLE GRAIN SIZE (0% 50% 100%) | PERCENT RECOVERY (0% 100%) | RECOVERY/INTERVAL | DATUM (FT) | DEPTH (FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION



Top soil, start of boring at 0.90 ft.

GP: Sandy Gravel - dark gray (N3), maximum gravel size 2" diameter, average size 1 1/2" diameter, coarse- to fine-grained sand, poorly graded, sub-rounded, medium plasticity, gravel quartz and arkosic arenite, dominant lithology sand quartz with some rock fragments, mica and trace dark minerals, abundant caliche throughout interval, moist, some roots present. 75% gravel, 20% sand, 1% silt, 4% clay.

SC: Clayey Sand with some silt - dusky yellowish brown (10YR2/2), coarse- to fine-grained sand, average size gravel 1/4" diameter, well graded, sub-angular, medium plasticity, dominant lithology sand quartz with some K-spar, caliche clasts and rock fragments, trace mica and dark minerals, gravel primarily quartzite and granite with some caliche coating, trace carbonaceous material throughout interval, some caliche throughout interval, no apparent bedding, dry to moist, some roots present, increase in competency at 1.7'-6.2'. 14% gravel, 50% sand, 15% silt, 21% clay.

GC: Sandy Gravel with some clay - moderate brown (5YR3/4), as described below, increase in gravel at 6.2-6.4'.

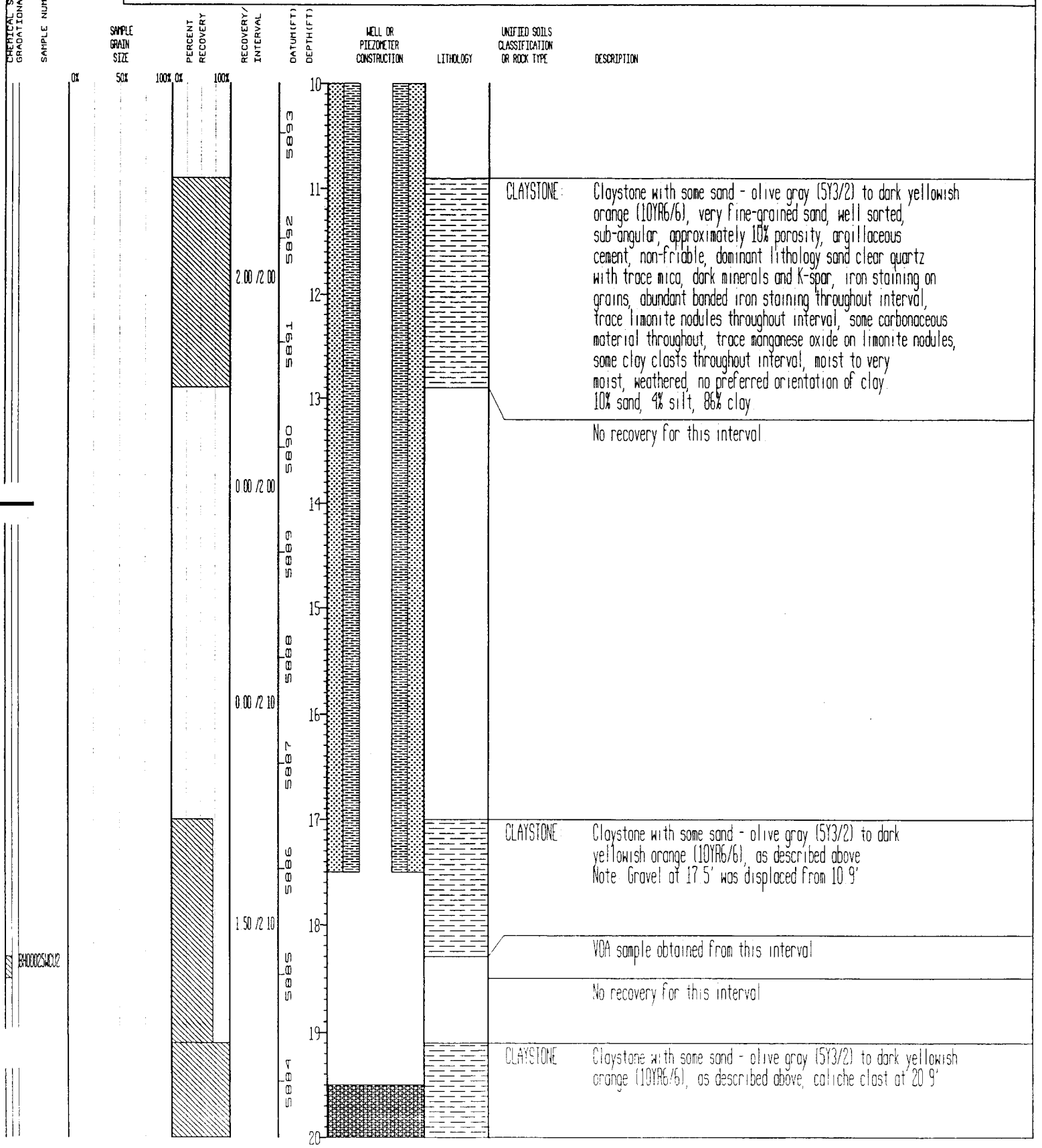
No recovery for this interval.

GC: Sandy Gravel with some clay - moderate brown (5YR3/4), maximum gravel size 1 1/2" diameter, average size 1/2" diameter, coarse- to fine-grained sand, well graded, sub-angular to sub-rounded, medium plasticity, gravel primarily quartzite and granite, dominant lithology sand quartzite and granite rock fragments with some quartz, K-spar and trace mica and dark minerals, trace limonite nodules and caliche throughout interval, no apparent bedding, moist to very moist. 48% gravel, 38% sand, 3% silt, 11% clay.

No recovery for this interval.
Top of bedrock at 10.9 ft.

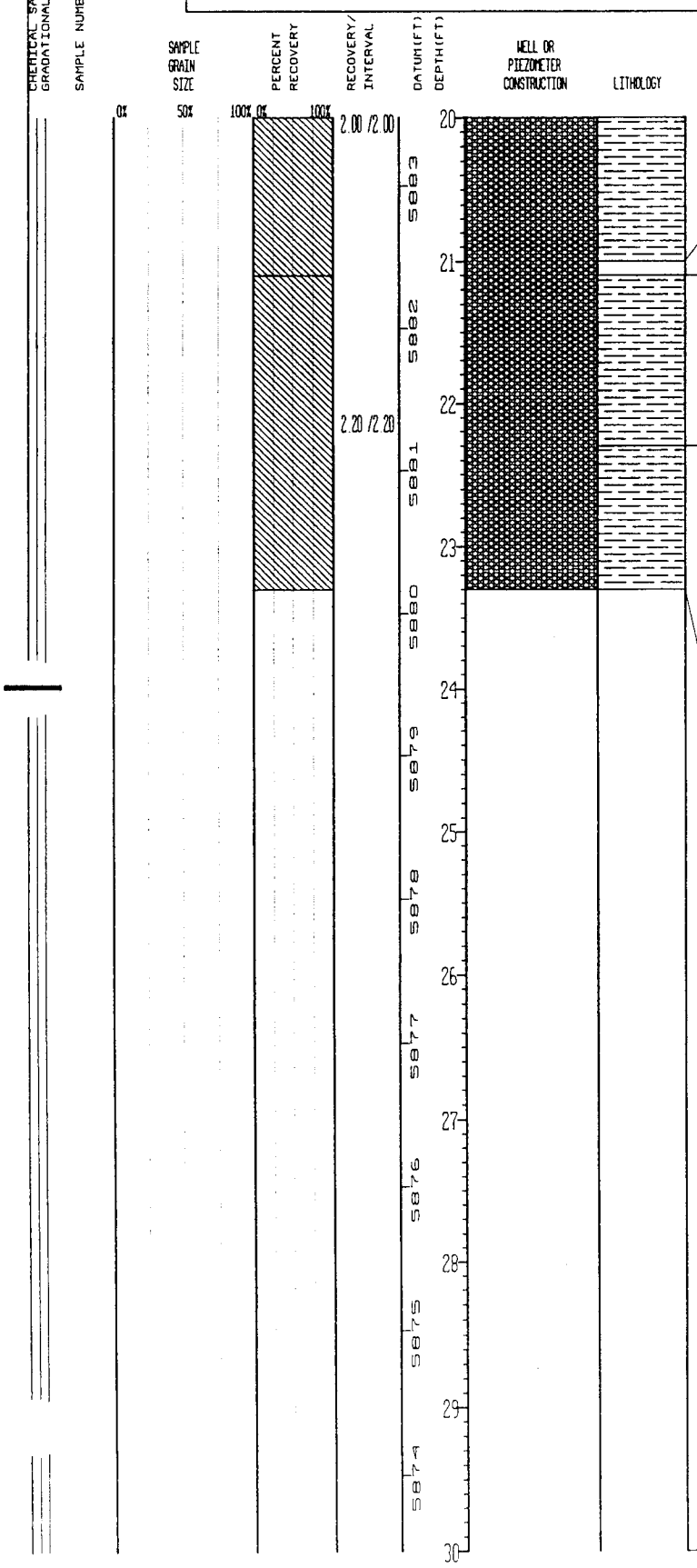
STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 23.3	GROUND ELEVATION (FT): 5903.47	PROJECT NUMBER: OU2RI	LOG OF BORING NUMBER:
NORTH: 748645.39	AREA: 903 PAD	CASING DIAMETER (IN): 2.0	GEOLOGIST: L.A. GUST	00491
EAST: 2086806.87	LOCATOR NUMBER: 613	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 10/11/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 7.0 FT. - 4.0 FT. BACKFILL MATERIAL: BENTONITE 23.3 FT. - 17.5 FT.



STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 23.3	GROUND ELEVATION (FT):	5903.47	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH: 748645.39	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	00491
EAST: 2086806.87	LOCATOR NUMBER: 613	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/11/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 7.0 FT. - 4.0 FT. BACKFILL MATERIAL: BENTONITE 23.3 FT. - 17.5 FT.



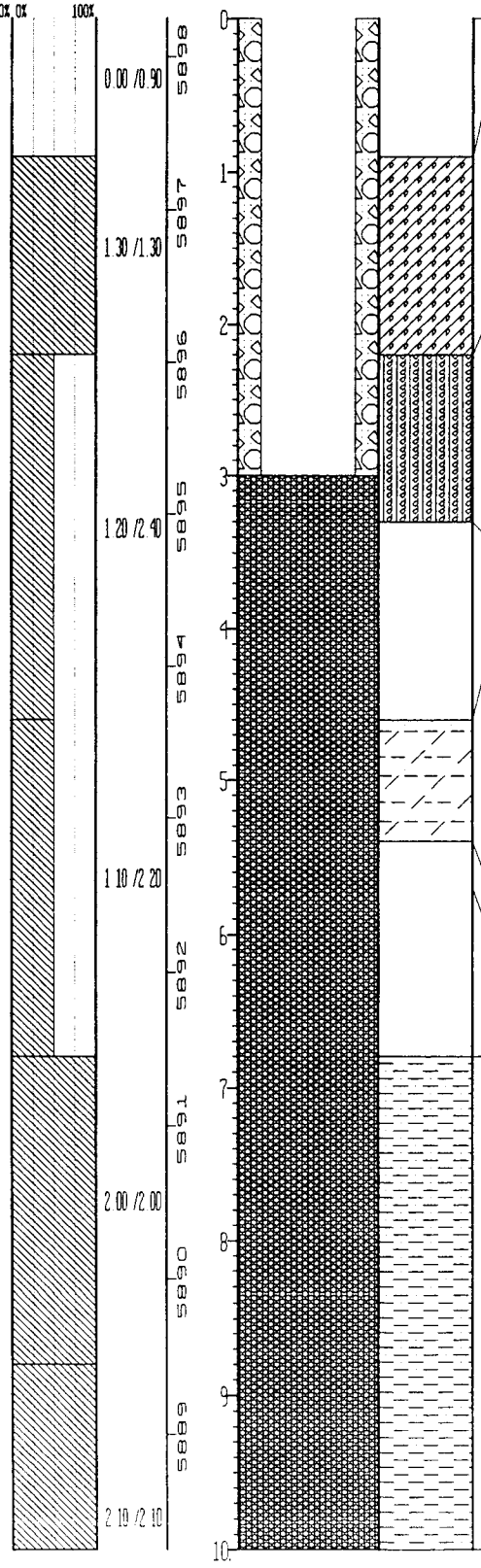
UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	No recovery for this interval.
CLAYSTONE:	Claystone with some sand - olive gray (5Y3/2) to dark yellowish orange (10YR6/6), as described above, trace horizontal bedding at 21.4-21.6', some vertical healed fractures with limonite at 21.8-22.1' and throughout interval.
CLAYSTONE:	Claystone with some sand - olive gray (5Y3/2), very fine-grained sand, well sorted, sub-angular, approximately 5% porosity, argillaceous cement, slightly friable, dominant lithology clear quartz with trace mica and dark minerals, trace iron staining throughout interval, trace carbonaceous material throughout interval, caliche clast at 23.1', no apparent bedding or fractures, moist, unweathered. 9% sand, 3% silt, 88% clay.
	Total depth at 23.3 ft

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 12.9	GROUND ELEVATION (FT):	5898.25	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	748501.38	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	00591
EAST:	2086649.99	LOCATOR NUMBER: 613	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	10/09/91	

REMARKS: ABANDONED WELL DUE TO SHALLOW BEDROCK

BACKFILL MATERIAL: BENTONITE 12.9 FT - 3.0 FT

TH DEPTH | CHEMICAL SAMP/ GRADATIONAL S | SAMPLE NUMBER | SAMPLE GRAIN SIZE (0% 50% 100%) | PERCENT RECOVERY (0% 100%) | RECOVERY/ INTERVAL | DATUM (FT) | DEPTH (FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION



BH000224CU2

Top soil, start of boring at 0.90 ft

SC: Clayey Gravelly Sand - moderate yellowish brown (10YR5/4), coarse- to fine-grained sand, gravel maximum size 1 1/2" diameter, average size 1/4" diameter, well graded, sub-angular to sub-rounded, medium plasticity, dominant lithology sand rock fragments with abundant quartz and some mica and trace dark minerals, gravel primarily quartzite with some granite and quartz, abundant caliche and caliche coating on gravels, dry, abundant root present, no apparent bedding.
32% gravel, 42% sand, 7% silt, 19% clay

SM: Silty Sand with some clay - dusky yellow (5Y4/4), coarse- to fine-grained sand, trace gravel up to 1/4" diameter, poorly graded, sub-angular, low plasticity, dominant lithology sand quartz with some rock fragments, K-spar and trace mica and dark minerals, gravel primarily quartzite and granite, some limonite nodules and caliche throughout interval, trace iron staining throughout interval, no apparent bedding, dry, some roots present.
1% gravel, 64% sand, 27% silt, 8% clay

No recovery for this interval

Top of bedrock at 4.6 ft

SILTY CLAYSTONE: Silty Claystone - pale olive (10Y6/2) to dark yellowish orange (10YR6/6), very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with trace K-spar, mica and dark minerals, trace iron staining on grains, some caliche throughout interval, some iron staining throughout interval, no apparent bedding or fracturing, dry to moist, trace roots, weathered
14% sand, 17% silt, 69% clay

VOA sample obtained from this interval

No recovery for this interval

SANDY CLAYSTONE: Sandy Claystone with some interbedded clayey sandstone lenses - pale olive (10Y6/2) to dark yellowish brown (10YR4/2), very fine-grained sand, trace gravel up to 1", well sorted, sub-angular, approximately 15% porosity, argillaceous cement, lenses moderately friable, clay lense slightly friable, dominant lithology sand clear quartz with trace dark minerals and mica, quartzite gravel, some limonite nodules throughout interval, trace hematite staining, trace carbonaceous material throughout, some caliche clasts at 12.8', no apparent bedding or fracturing, dry to moist, increasing in sand and iron staining at 6.8-7.4', 8.7-9.4', and 12.5-12.6', trace quartzite gravel at 10.9'
40% sand, 6% silt, 54% clay

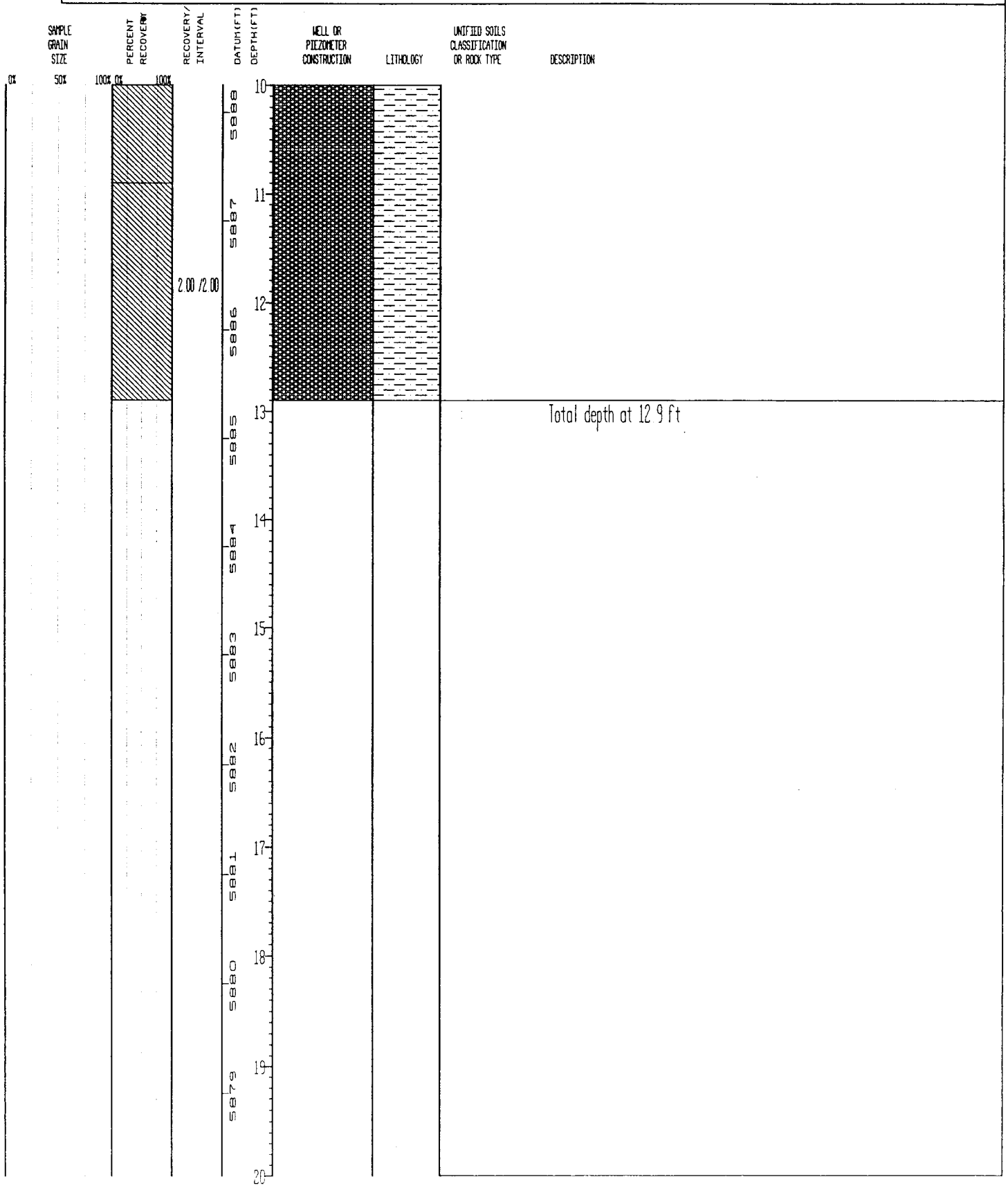
STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 12.9	GROUND ELEVATION (FT):	5898.25	PROJECT NUMBER:	OU2RI
NORTH: 748501.38	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST: 2086649.99	LOCATOR NUMBER: 613	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	10/09/91

REMARKS: ABANDONED WELL DUE TO SHALLOW BEDROCK

BACKFILL MATERIAL: BENTONITE 12.9 FT - 3.0 FT

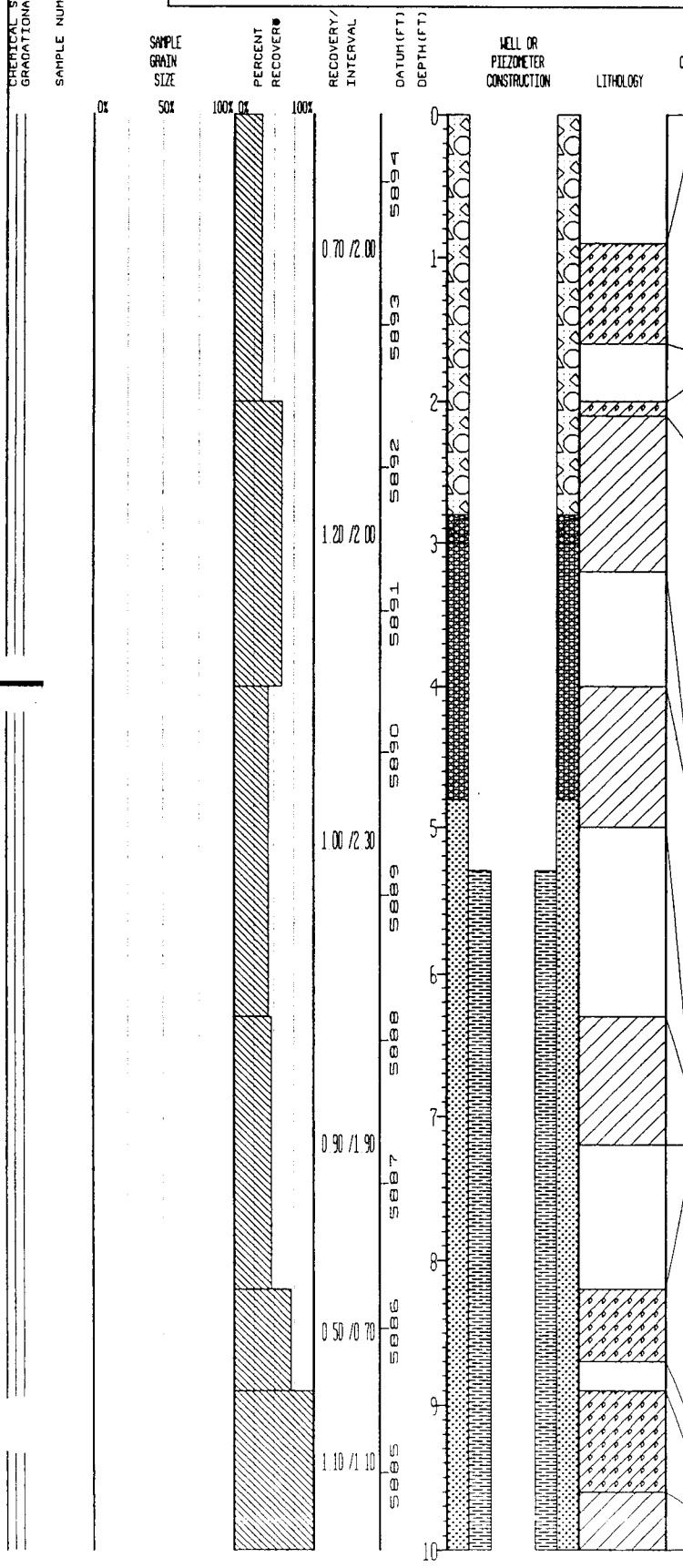
LOG OF BORING NUMBER

00591



STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 18.5	GROUND ELEVATION (FT):	5894.47	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER
NORTH:	748321.62	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	00691
EAST:	2086378.98	LOCATOR NUMBER: 613	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/13/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 4.8 FT. - 2.8 FT. BACKFILL MATERIAL: BENTONITE 18.5 FT. - 14.3 FT.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	Top soil, start of boring at 0.90 ft.
SC	Clayey Sand with some silt and gravel - moderate brown (5YR4/4), maximum gravel diameter .11', average .04', fine- to coarse-grained sand, well graded, gravel is rounded, sand is sub-angular to rounded, moderate plasticity, gravel is primarily quartzite with trace granite at 2.0-2.1', sand contains abundant quartz, some rock fragments, trace feldspar, mica, kaolinized feldspar, plant root fragments, moist 11% gravel, 55% sand, 13% silt, 21% clay
	No recovery for this interval
SC	Clayey Sand with some silt and gravel - moderate brown (5YR4/4), as described above
CL	Sandy Clay with some silt - light olive gray (5Y6/1) with dark yellowish orange (10YR6/6) iron stain at 2.3', 2.6', 2.8', grayish orange (10YR7/4) at 2.8-3.2', maximum gravel diameter .04', average .02', fine- to coarse-grained sand, poorly graded, angular to rounded, moderate to high plasticity, gravel is primarily quartzite, sand contains abundant quartz, calcrete/caliche, some rock fragments, feldspar, trace mica, limonite stain, re-worked silty clay bedrock at 2.1-2.8', thinly to thickly laminated, organic/carbonaceous material at 2.1-2.8', some caliche laminea at 2.8-3.2', moist 1% gravel, 33% sand, 8% silt, 58% clay
	No recovery for this interval
CL /sc	Clayey Sand with some silt - moderate yellowish brown (10YR5/4), maximum gravel diameter .25', average .03', fine- to coarse-grained sand, poorly graded, angular to rounded, moderate to high plasticity, gravel is primarily quartzite, sand contains abundant quartz, some feldspar, rock fragments caliche/calcrete, dark minerals, trace limonite stain, mica, thinly laminated clay and silty sand at 4.8', increased caliche at 4.9-5.0', 6.3-6.5', 7.0-7.2', re-worked sandy clay (bedrock) at 4.6-4.8', moist to dry 1% gravel, 44% sand, 20% silt, 35% clay
	No recovery for this interval
CL /sc	Clayey Sand with some silt - moderate yellowish brown (10YR5/4), as described above
	No recovery for this interval
SC	Clayey Sand with some gravel and silt - light brown (5YR5/6), maximum gravel diameter .2', average .07', fine- to coarse-grained sand, well graded, gravel is angular, sand is sub-angular to sub-rounded, moderate plasticity, gravel is primarily quartzite, sand contains abundant frosted quartz, quartz, some rock fragments, dark minerals, trace calcrete/caliche, mica, clasts of grayish yellow green (5GY7/2) sandy clay at 9.4-9.6', dry 12% gravel, 49% sand, 12% silt, 27% clay
	No recovery for this interval
SC	Clayey Sand with some gravel and silt - light brown (5YR5/6), as described above
CL	Sandy Clay - dusky yellow (5Y6/4) to moderate yellowish brown (10YR5/4)

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 18.5	GROUND ELEVATION (FT):	5894.47	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	748321.62	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	00691
EAST:	2086378.98	LOCATOR NUMBER: G13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/13/92	

REMARKS: HOLLOW-STEM AUGER BENTONITE SEAL 4.8 FT. - 2.8 FT. BACKFILL MATERIAL: BENTONITE 18.5 FT. - 14.3 FT.

CHEMICAL SAMP/ GRADATIONAL S	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%	2.10 /2.10	5884 5883	10 11				at 9.8-10.4', maximum gravel diameter .12', average .03', fine-grained, poorly graded, angular to rounded, moderate to high plasticity, gravel is primarily quartzite, sand contains abundant quartz, some rock fragments, trace mica, some caliche laminea and fine-grained sized nodules throughout, mottled to thinly/thickly laminated at 10.4-12.3', some iron stain throughout, unit coarsens up, dry. 4% gravel, 15% sand, 3% silt, 78% clay.
				2.00 /2.00	5882 5881	12 13			CL	Silty Clay with some sand - yellowish gray (5Y7/2) to light olive gray (5Y5/2), as described below
	36464C02					14				VOA sample obtained from this interval
				1.90 /1.90	5880 5879	15			CL	Silty Clay with some sand - yellowish gray (5Y7/2) to light olive gray (5Y5/2), dark yellowish orange (10YR6/6) where iron stained at 12.4-13.5', fine- to coarse-grained (.02' maximum diameter), poorly graded, sub-rounded to rounded, high plasticity, sand contains abundant quartz, caliche, some rock fragments/dark minerals, trace limonite stain, caliche laminea at 14.8-15.2', .15'x.15' caliche nodule at 17.3-17.5', > .07'x.07' caliche nodule at 18.0', iron/manganese stain/nodule at 13.0-13.4', 15.8-16.0', moist. 0% gravel, 12% sand, 13% silt, 75% clay
				2.10 /2.10	5878 5877	16 17				
				0.00 /0.40	5876 5875	18 19 20				Total depth at 18.5 ft

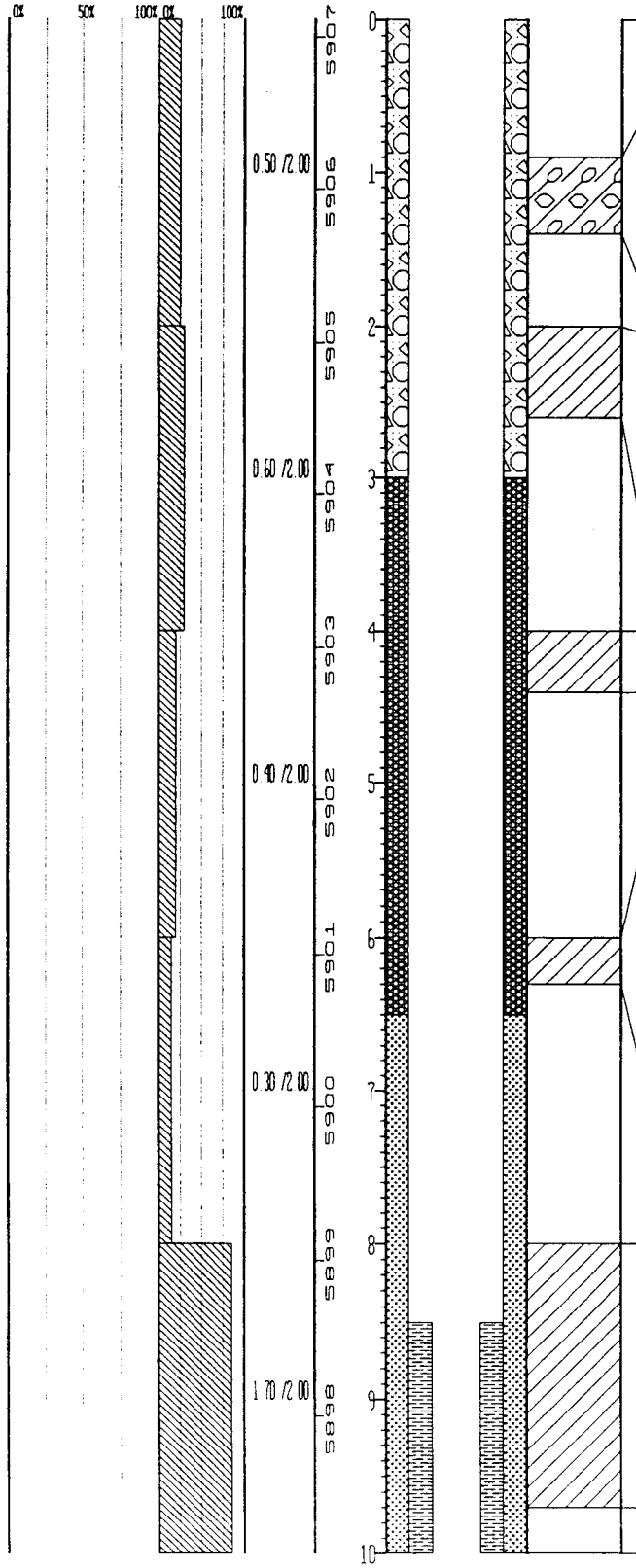
STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 24.5	GROUND ELEVATION (FT):	5907.11	PROJECT NUMBER:	OU2/RI
NORTH: 748302.59	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST: 2086023.30	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/14/92

LOG OF BORING NUMBER: 00791

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 6.5 FT. - 3.0 FT. BACKFILL MATERIAL: BENTONITE 24.5 FT. - 20.5 FT.

* = ESTIMATED GRAIN SIZE DISTRIBUTION AND DESCRIPTION

TH DEPTH | CHEMICAL SAMP | GRADATIONAL S | SAMPLE NUMBER | SAMPLE GRAIN SIZE (0% 50% 100%) | PERCENT RECOVERY (0% 100%) | RECOVERY/INTERVAL | DATUM (FT) | DEPTH (FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION



Top soil, start of boring at 0.90 ft.

GC: Clayey Gravel with some sand and silt * - grayish brown (5YR3/2), maximum gravel diameter .13', average .05', fine- to coarse-grained sand, well graded, sub-angular to sub-rounded, moderate plasticity, gravel is primarily quartzite, sand contains abundant carbonaceous/organic material, quartz, some rock fragments, moist to wet.
*30% gravel, 25% sand, 15% silt, 30% clay

No recovery for this interval.

CL: Clay with some sand and silt - light olive gray (5Y5/2), maximum and average gravel diameter .02', fine-grained sand, poorly graded, angular to sub-rounded, high plasticity, gravel is primarily quartzite with some granite, abundant frosted and clear quartz, some rock fragments/dark minerals, caliche nodules at 2.1', 2.4', soil rip-up clasts at 2.2', mottled, moist to wet.
1% gravel, 10% sand, 9% silt, 80% clay

No recovery for this interval

CL /gc: Gravelly Clay with some sand and silt - moderate brown (5YR3/4) to dark yellowish brown (10YR4/2) at 10.0-11.3', as described below

No recovery for this interval.

CL /gc: Gravelly Clay with some sand and silt - moderate brown (5YR3/4) to dark yellowish brown (10YR4/2) at 10.0-11.3', maximum gravel diameter .16', average .05', fine- to medium-grained, well graded, angular to well rounded, moderate to high plasticity, gravel is primarily quartzite with some granite, sand contains abundant quartz, some rock fragments, feldspar, trace kaolinized feldspar, mica, iron stain, dark minerals, trace caliche at 10.0-11.3', moist.
21% gravel, 17% sand, 16% silt, 46% clay

No recovery for this interval

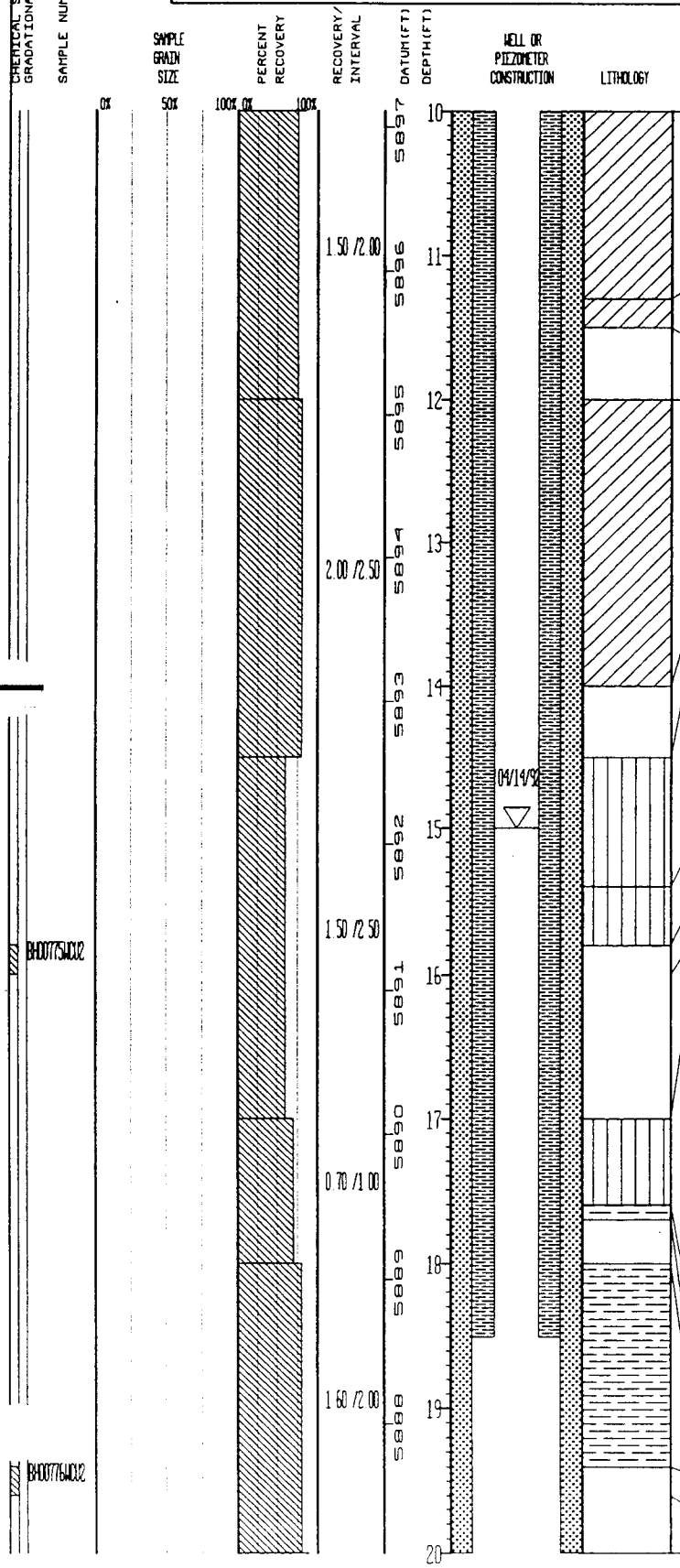
CL /gc: Gravelly Clay with some sand and silt - moderate brown (5YR3/4) to dark yellowish brown (10YR4/2), as described above.

No recovery for this interval

STATE PLANE COORDINATE		TOTAL DEPTH (FT): 24.5	GROUND ELEVATION (FT):	5907.11	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	748302.59	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	00791
EAST:	2086023.30	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/14/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 6.5 FT. - 3.0 FT. BACKFILL MATERIAL: BENTONITE 24.5 FT. - 20.5 FT.

* = ESTIMATED GRAIN SIZE DISTRIBUTION AND DESCRIPTION

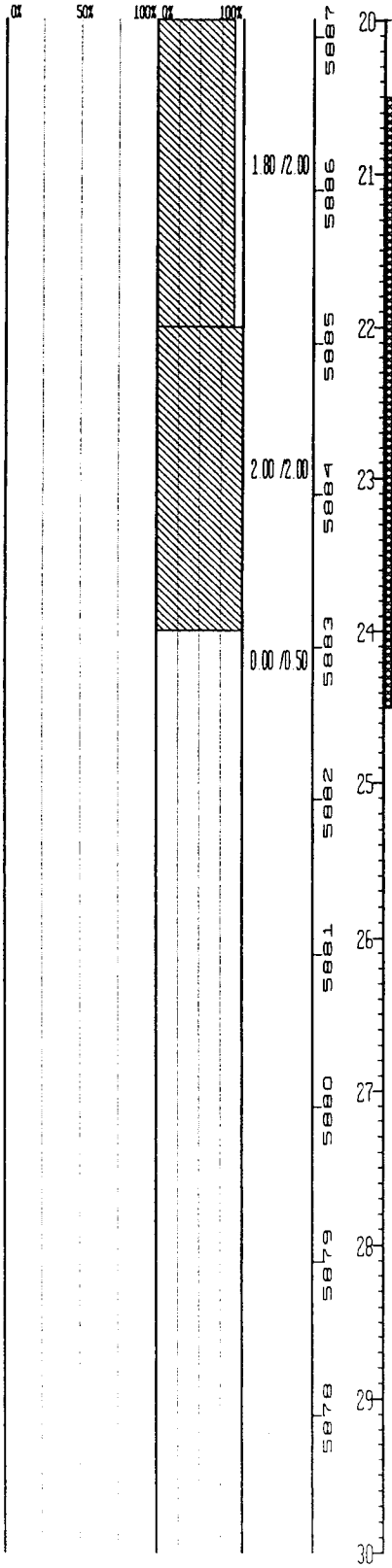


UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
CL /gc:	Gravelly Clay with some sand and silt - moderate brown (5YR3/4) to dark yellowish brown (10YR4/2), as described above.
CL:	Clay with some silt - light olive gray (5Y5/2) to dark yellowish orange (10YR6/6), as described below.
	No recovery for this interval.
CL:	Clay with some silt - light olive gray (5Y5/2) to dark yellowish orange (10YR6/6) at 13.1-14.4', fine-grained, poorly graded, sub-rounded to rounded, high plasticity, abundant quartz, some dark minerals, mottled, moist. 0% gravel, 5% sand, 10% silt, 85% clay.
	No recovery for this interval.
ML/gm:	Gravelly Silt with some sand and clay - light brown (5YR5/6), maximum gravel diameter .22', average .08', fine- to coarse-grained sand, well graded, sub-angular to rounded, low plasticity, gravel is primarily quartzite with trace granite at 15.0', sand contains abundant quartz, some rock fragments, dark minerals, feldspar, trace kaolinized feldspar, mica, iron stain, wet. 29% gravel, 17% sand, 37% silt, 17% clay.
ML/gm:	Gravelly Silt with some clay and sand - light olive gray (5Y6/1) to dark yellowish brown (10YR4/2), as described below.
	VOA sample obtained from this interval.
	No recovery for this interval.
ML/gm:	Gravelly Silt with clay and sand - light olive gray (5Y6/1) to dark yellowish brown (10YR4/2) at 17.0-17.6', maximum gravel diameter .2', average .07', sand is fine- to coarse-grained, well graded, angular to sub-rounded, moderate plasticity, gravel is primarily quartzite, sand contains abundant quartz, some rock fragments, dark minerals, feldspar, kaolinized feldspar, trace mica, iron stain, thinly bedded at 15.4-15.7', thin bed of dark yellowish orange (10YR6/6) iron stained sandy clay at 15.5', consolidated possible aquatard 15.5-15.8', rounded gravel loaded into sharp bedrock contact at 17.6', moist to wet. 24% gravel, 14% sand, 43% silt, 19% clay. Top of bedrock at 17.6 ft.
CLAYSTONE:	Claystone with some silt - light gray (N7) to dark gray (N3), dark yellowish orange (10YR6/6), as described below.
	No recovery for this interval.
CLAYSTONE:	Claystone with some silt - light gray (N7) to dark gray (N3), dark yellowish orange (10YR6/6), as described below.
	VOA sample obtained from this interval.
	No recovery for this interval.

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 24.5	GROUND ELEVATION (FT):	5907.11	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 748302.59	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	00791
EAST: 2086023.30	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/14/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 6.5 FT. - 3.0 FT. BACKFILL MATERIAL: BENTONITE 24.5 FT - 20.5 FT.

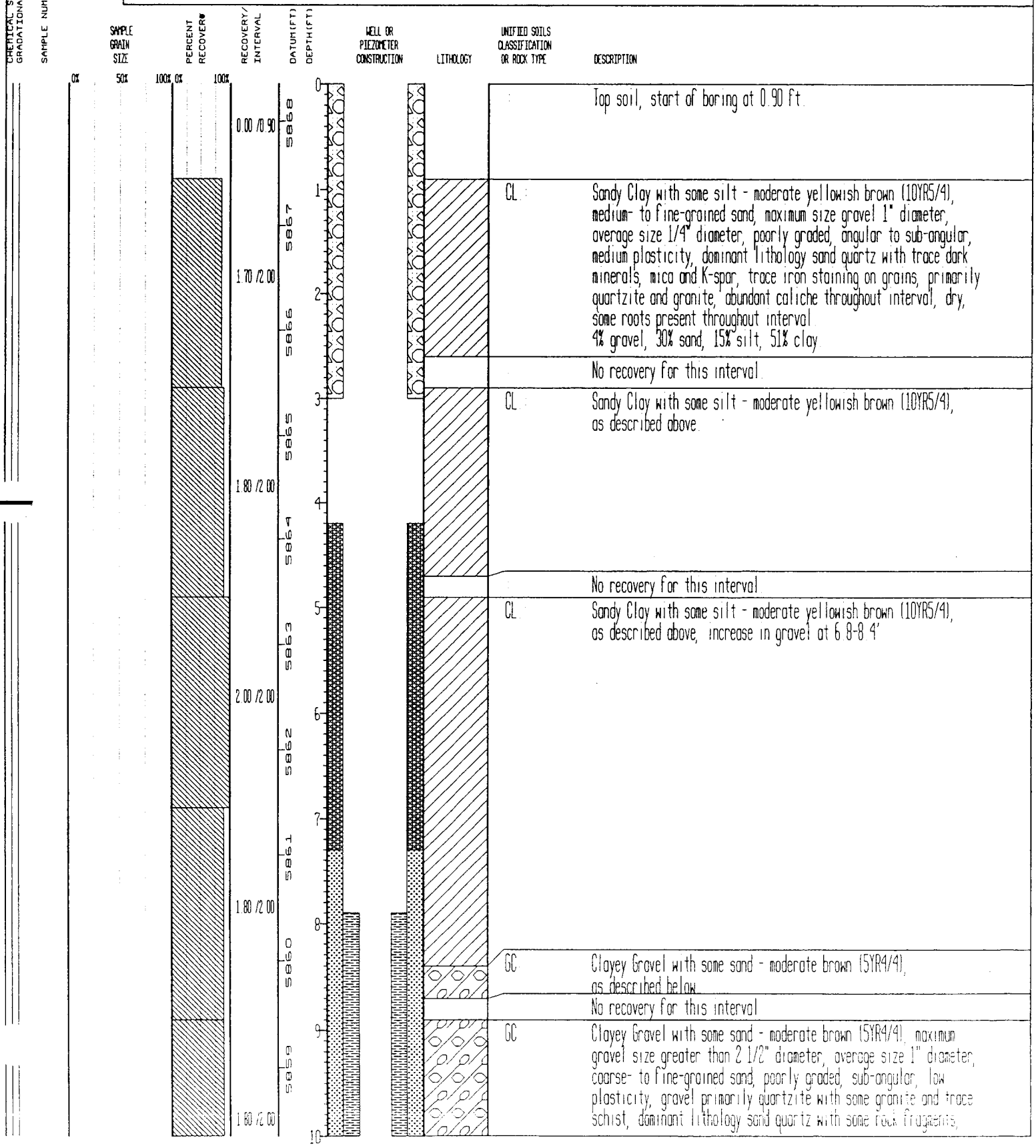
* = ESTIMATED GRAIN SIZE DISTRIBUTION AND DESCRIPTION



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
CLAYSTONE:	Claystone with some silt - light gray (N7) to dark gray (N3), dark yellowish orange (10YR6/6) at 18.0-18.2', 20.8-21.1', 21.6-21.8', 22.3', 23.1', 23.6', 18.3-18.5', very fine-grained, very well sorted, rounded, approximately 2% porosity, argillaceous cement, non-friable, abundant frosted quartz, some dark minerals, iron stain, mottled, iron nodules at 20.8-21.1', 80 to 90 degree fractures with iron stain at 18.5-18.8', 60 degree fracture with iron stain at 21.6-21.8', moist to dry. 2% sand, 5% silt, 93% clay
	No recovery for this interval.
CLAYSTONE:	Claystone with some silt - light gray (N7) to dark gray (N3), dark yellowish orange (10YR6/6), as described above.
	Total depth at 24.5 ft.

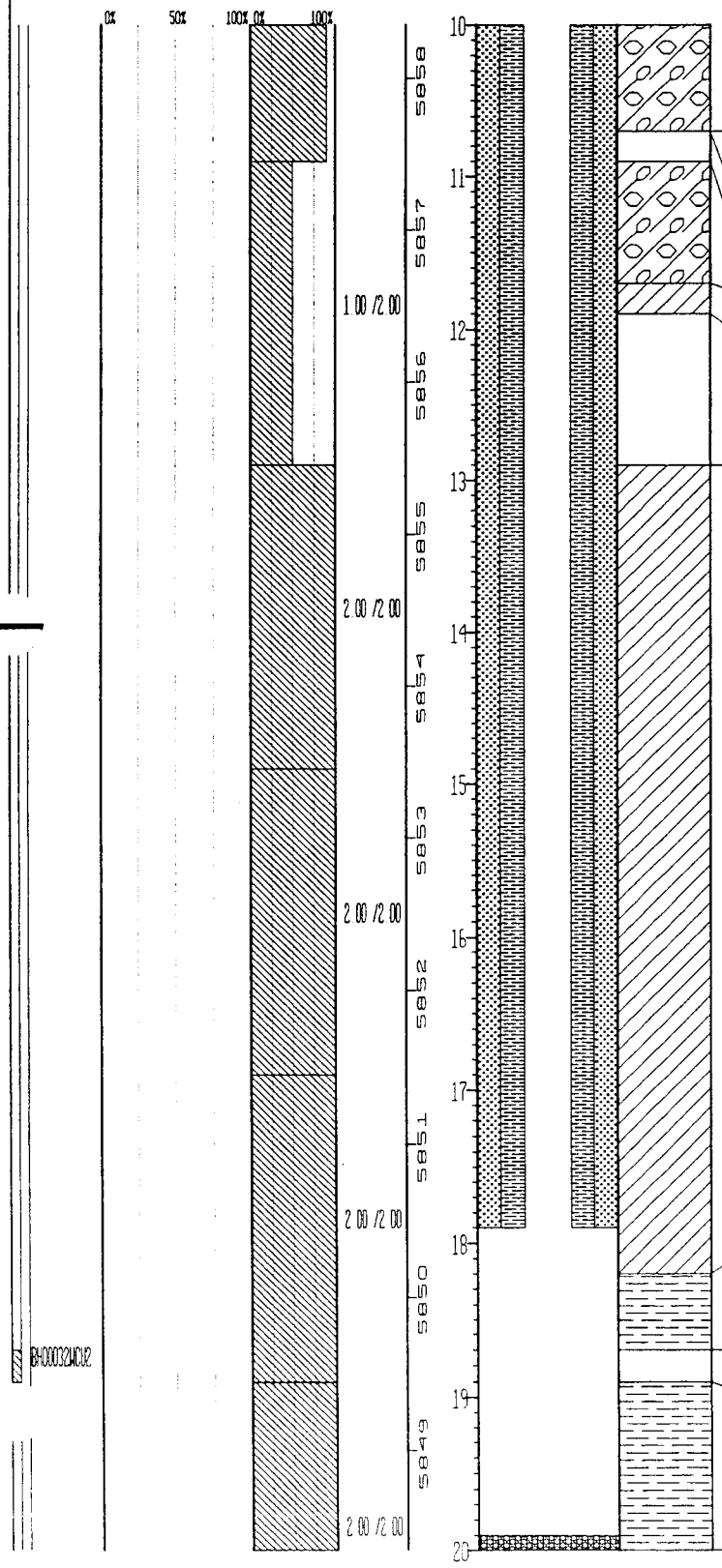
STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 23.9	GROUND ELEVATION (FT):	5868.35	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	748551.33	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	00891
EAST:	2087260.01	LOCATOR NUMBER: 614	BOREHOLE DIAMETER (IN):	9.5	DATE DRILLED:	10/18/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 7.3 FT. - 4.2 FT. BACKFILL MATERIAL: BENTONITE 23.9 FT. - 19.9 FT.



STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 23.9	GROUND ELEVATION (FT): 5868.35	PROJECT NUMBER: OU2RI	LOG OF BORING NUMBER:
NORTH: 748551.33	AREA: 903 PAD	CASING DIAMETER (IN): 2.0	GEOLOGIST: L.A. GUST	00891
EAST: 2087260.01	LOCATOR NUMBER: G14	BOREHOLE DIAMETER (IN): 9.5	DATE DRILLED: 10/18/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 7.3 FT. - 4.2 FT. BACKFILL MATERIAL: BENTONITE 23.9 FT. - 19.9 FT.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	dark minerals and trace mica, trace iron staining on grains, abundant caliche coating on gravel, increase in clay content at 10.2-11.1', no apparent bedding, dry. 63% gravel, 12% sand, 3% silt, 22% clay.
GC:	Clayey Gravel with some sand - moderate brown (5YR4/4), as described above.
	No recovery for this interval.
GC:	Clayey Gravel with some sand - moderate brown (5YR4/4), as described above, trace carbonaceous material at 11.4'
CL:	Clay with some sand - pale olive (10Y6/2), as described below.
	No recovery for this interval.
CL:	Clay with some sand - pale olive (10Y6/2), fine- to very fine-grained sand, poorly graded, sub-angular, medium plasticity, dominant lithology sand quartz with some K-spar and trace rock fragments, mica and dark minerals, gravel primarily quartzite, abundant caliche coating on gravel throughout, trace iron nodule at 14.4, no apparent bedding, dry, some 50 degree fractures controlling caliche at 12.9-14.9' and 16.9-18.2', some manganese staining at 14.5-14.7' and 16.9-17.0', increase in gravel at 17.2-17.5', broken at 17.7-18.2'. 3% gravel, 10% sand, 2% silt, 85% clay. Top of bedrock at 18.2 ft.
CLAYSTONE	Claystone - grayish olive (10Y4/2) to olive gray (5Y3/2) with some dark yellowish orange (10YR6/6), as described below, trace vertical fracture healed with iron at 18.6-18.7'
	VOA sample obtained from this interval
CLAYSTONE	Claystone - grayish olive (10Y4/2) to olive gray (5Y3/2) with some dark yellowish orange (10YR6/6), very fine-grained sand, well sorted, sub-angular, approximately 10% porosity controlled by secondary fractures, argillaceous cement slightly to moderately friable, dominant lithology sand

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STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 23.9	GROUND ELEVATION (FT):	5868.35	PROJECT NUMBER:	OU2RI
NORTH: 748551.33	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST: 2087260.01	LOCATOR NUMBER: 614	BOREHOLE DIAMETER (IN):	9.5	DATE DRILLED:	10/18/91

LOG OF BORING NUMBER: 00891

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 7.3 FT. - 4.2 FT. BACKFILL MATERIAL: BENTONITE 23.9 FT. - 19.9 FT.

CHEMICAL SAMPLE / GRADATIONAL SIZE	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%			20				quartz with abundant iron nodules and trace mica and dark minerals, trace carbonaceous material throughout, iron nodule at 19.1', iron nodules and ironstone layer at 21.1-21.4', no preferred bedding orientation, highly fractured throughout interval, 0-45 degree fractures healed with iron at 19.1-20.1', abundant 0-90 degree healed fractures with iron at 20.1-20.9', vertical healed fractures with iron at 21.6-21.8', moist, weathered. 5% sand, 4% silt, 91% clay.
				1.00 /1.00	5848 5847	21				
					5846	22			CLAYSTONE:	Claystone - medium dark gray (N4), very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, argillaceous cement, non-friable, dominant lithology sand clear quartz with trace dark minerals and mica, no preferred bedding orientation, trace vertical healed fractures with iron staining at 23.6-23.9', some caliche clasts with iron staining at 23.4-23.6', moist, unweathered. 6% sand, 2% silt, 92% clay.
				2.00 /2.00	5845	23				
					5844	24				Total depth at 23.9 ft.
					5843	25				
					5842	26				
					5841	27				
					5840	28				
					5839	29				
						30				

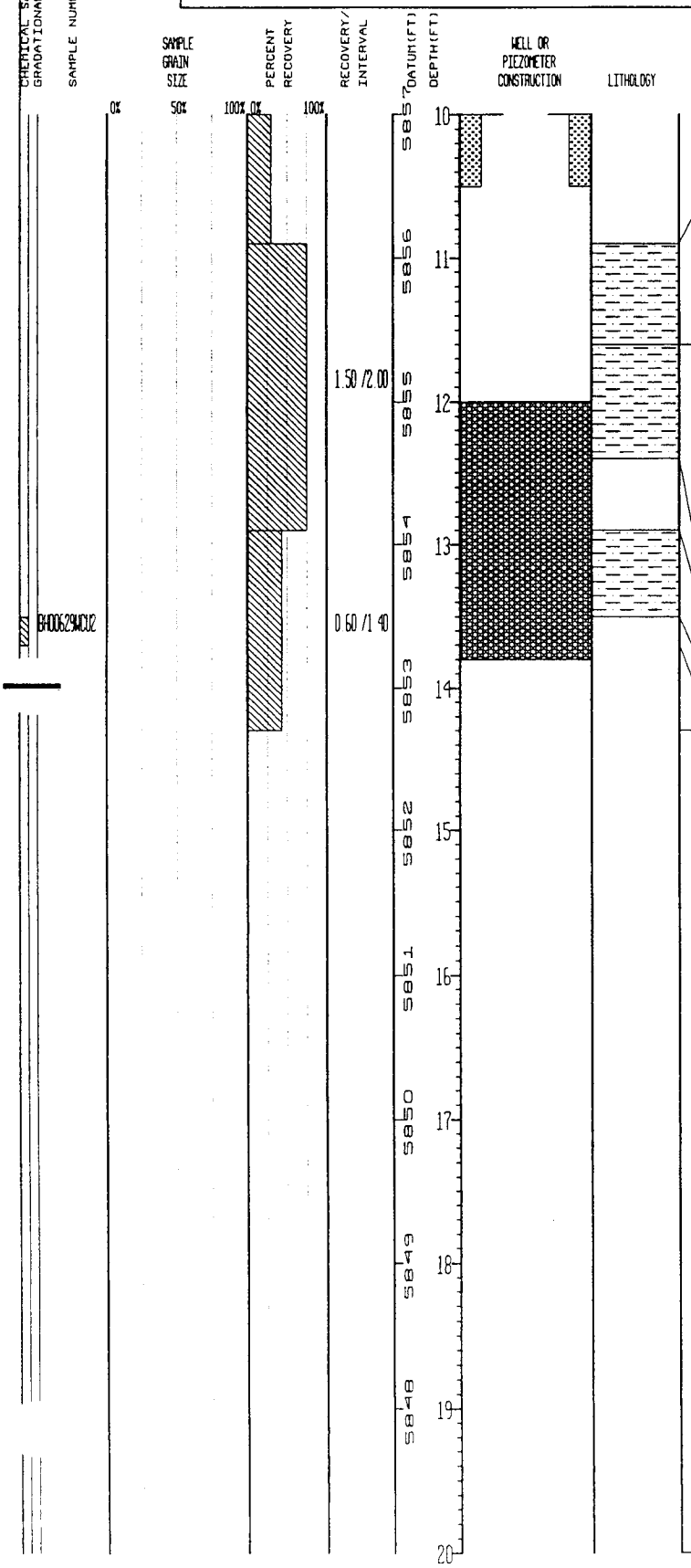
STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 14.3	GROUND ELEVATION (FT):	5867.00	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH: 748081.98	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	00991
EAST: 2086190.34	LOCATOR NUMBER: 613	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/05/92	

REMARKS: HOLLOW STEM AUGER BENTONITE SEAL 4.5 FT. - 2.5 FT. BACKFILL MATERIAL: BENTONITE 13.8 FT. - 12.0 FT.

CHEMICAL SAMP / GRADATIONAL S.	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
										Top soil, start of boring at 0.90 ft.
				0.30 /2.90	5866	1			SM	Silty Sand with some clay - grayish brown (5YR3/2), maximum gravel diameter .11', average .07', very fine- to coarse-grained sand, well graded angular to sub-rounded, low to medium plasticity, gravel is primarily quartzite, sand contains abundant carbonaceous/organic material, quartz, some dark minerals, iron staining, calcrete, feldspar, trace mica, roots, and iron nodules (small) throughout, no bedding, moist. Top of bedrock at 2.9 ft. 5% gravel, 45% sand, 29% silt, 21% clay
					5865	2				No recovery for this interval.
				1.10 /2.00	5864	3			SANDY CLAYSTONE	Sandy Claystone with some silt - light olive gray (5Y5/2) at 2.9-3.4' weathered zone, pale olive (10Y6/2) at 3.4-11.6', very fine-grained, very well sorted, sub-angular to rounded, approximately 3% porosity, slightly to non-friable, abundant quartz, some iron staining, trace mica, dark minerals, thinly laminated, caliche and iron staining along lamina 15% sand, 9% silt, 76% clay
					5863	4				No recovery for this interval.
					5862	5			SANDY CLAYSTONE	Sandy Claystone with some silt - pale olive (10Y6/2), as described above
				0.80 /2.00	5861	6				No recovery for this interval.
					5860	7			SANDY CLAYSTONE	Sandy Claystone with some silt - pale olive (10Y6/2), as described above
				0.90 /2.00	5859	8				No recovery for this interval.
					5858	9			SANDY CLAYSTONE	Sandy Claystone with some silt - pale olive (10Y6/2), as described above
				0.66 /2.00		10				No recovery for this interval.

STATE PLANE COORDINATE	TOTAL DEPTH (FT): 14.3	GROUND ELEVATION (FT): 5867.00	PROJECT NUMBER: OU2RI	LOG OF BORING NUMBER:
NORTH: 748081.98	AREA: 903 PAD	CASING DIAMETER (IN): 2.0	GEOLOGIST: J.P. O'BRIEN	00991
EAST: 2086190.34	LOCATOR NUMBER: 613	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 02/05/92	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 4.5 FT. - 2.5 FT. BACKFILL MATERIAL: BENTONITE 13.8 FT. - 12.0 FT.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
SANDY CLAYSTONE	Sandy Claystone with some silt - pale olive (10Y6/2), as described above, increased clay content and carbonaceous material at 11.3-11.6', assymetric ripple laminations (wavelength approximately .1', amplitude approximately .03'), increased sand content at 10.9-11.2', moist.
SANDY CLAYSTONE	Sandy Claystone with some silt - yellowish gray (5Y7/2), very fine- to fine-grained, well sorted, sub-angular to sub-rounded, approximately 10% porosity, agrillaceous cement, moderate friability, abundant quartz, some dark minerals, iron staining, trace mica, iron nodules at 11.6-11.8', increased carbonaceous material at 12.0', thinly laminated sand with carbonaceous material along lamina at 12.1-12.4', inclined at 15 degrees, moist. 41% sand, 12% silt, 47% clay
	No recovery for this interval
SANDY CLAYSTONE	Sandy Claystone with some silt - yellowish gray (5Y7/2), as described above
	VOA sample obtained from this interval
	No recovery for this interval
	Total depth at 14.3 ft

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 14.0	GROUND ELEVATION (FT):	5828.57	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	748047.27	AREA: 903 PAD	CASING DIAMETER (IN):		GEOLOGIST:	J.P. O'BRIEN	01091
EAST:	2086837.02	LOCATOR NUMBER: 613	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	02/06/92	
REMARKS:							

CHEMICAL SAMP / GRADATIONAL S	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%							Top soil, start of boring at 0.90 ft.
				1.00 /2.00	5828 5827	0 1			SC	Clayey Sand with some silt and gravel - grayish brown (5YR3/2), maximum gravel diameter .08', average .04', very fine- to coarse-grained sand, well graded, angular to sub-rounded, medium plasticity, gravel is primarily quartzite and calcrete nodules, some secondary kaolinite, sand contains abundant quartz, some dark minerals, rock fragments, calcrete, trace feldspar, iron staining, abundant roots to 1.4', caliche horizon at 1.7-1.8', moist. 8% gravel, 47% sand, 19% silt, 26% clay. Top of bedrock at 2.1'.
				1.90 /2.00	5826 5825	2 3			SANDY CLAYSTONE	Sandy Claystone with some silt - yellowish gray (5Y7/2), very fine- to fine-grained sand, well sorted, sub-angular to sub-rounded, approximately 8% porosity, argillaceous cement, moderately friable, abundant quartz, some dark minerals, iron staining, calcrete nodules, faint thin to thick laminea, iron staining along bedding planes at 3.3', caliche along laminea, carbonaceous material along laminea, moist. 35% sand, 10% silt, 55% clay.
				1.30 /2.00	5824 5823	4 5			CLAYSTONE	Claystone with some silt and sand - greenish gray (5GY6/1), as described below
										No recovery for this interval
				1.30 /2.00	5822 5821	6 7			CLAYSTONE	Claystone with some silt and sand - greenish gray (5GY6/1), very fine-grained, very well sorted, rounded, approximately 2% porosity, argillaceous cement, slightly friable, abundant quartz, some iron staining, iron stain along laminea and interbedded caliche at 4.8-5.0', thin bed of caliche-calcrete nodules at 5.2', iron oxide replacing caliche bed at 6.2', caliche bed at 6.7-6.8', nest of iron oxide nodules at 6.9', iron oxide nodule at 7.1', thin caliche bed at 7.3', thinly laminated throughout interval, increased clay content at 8.0-8.4', no bedding, very thin caliche bed at 8.2', moist. 6% sand, 10% silt, 84% clay.
										No recovery for this interval
				1.70 /1.70	5820 5819	8 9			CLAYSTONE	Claystone with some silt and sand - greenish gray (5GY6/1), as described above.
									SANDY CLAYSTONE	Sandy Claystone with some silt - light olive gray (5Y5/2) to light brown (5YR5/6), as described below
						10				No recovery for this interval

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 14.0	GROUND ELEVATION (FT): 5828.57	PROJECT NUMBER: 002RI	LOG OF BORING NUMBER:	
NORTH: 749047.27	AREA: 903 PAD	CASING DIAMETER (IN):	GEOLOGIST: J.P. O'BRIEN	01091	
EAST: 2086837.02	LOCATOR NUMBER: 613	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 02/06/92		
REMARKS:					

CHEMICAL SAMPL / GRADATIONAL S / DEPTH	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/ INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
				2.00 /2.30	5818	10			SANDY CLAYSTONE	Sandy Claystone with some silt - light olive gray (5Y5/2) to light brown (5RY5/6), iron stained, very fine-grained, very well sorted, sub-rounded, approximately 5% porosity, argillaceous cement, moderately to slightly friable, abundant quartz some dark minerals, iron stain/mottled at 8.41', iron oxide bed and nodules, very thin caliche bed at 8.75', iron nodules at 8.9', faintly laminated to crudely stratified: carbonaceous clast at 9.5', iron nodules at 9.6', 10.3', and 12.7', banded iron staining at 10.7', iron nodule with manganeze oxide at 12.2', several 75-90 degree fractures healed with caliche and iron oxide at 12.3-12.8', 60 degree fracture healed with caliche and iron staining at 13.0-13.2' 16% sand, 13% silt, 71% clay.
					5817	11				
					5816	12				
				2.00 /2.00	5815	13				
					5814	14				Total depth at 14.0 ft.
					5813	15				
					5812	16				
					5811	17				
					5810	18				
					5809	19				
						20				

STATE PLANE COORDINATE	TOTAL DEPTH (FT): 13.4	GROUND ELEVATION (FT): 5869.13	PROJECT NUMBER: 002RI	LOG OF BORING NUMBER:	
NORTH: 749364.73	AREA: 903 PAD	CASING DIAMETER (IN):	GEOLOGIST: L.A. GUST	01191	
EAST: 2086755.31	LOCATOR NUMBER: 613	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 10/17/91		
REMARKS: HOLLOW STEM AUGER		BORING WAS ABANDONED DUE TO SHALLOW BEDROCK.			

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
				0.00 /0.90	5869	0				Top soil, start of boring at 0.90 ft.
				2.00 /2.00	5868	1			CL	Sandy Clay with some silt - moderate brown (5Y3/4), coarse- to fine-grained sand, poorly graded, sub-angular to sub-rounded, medium plasticity, dominant lithology sand quartz with some dark minerals, rock fragments and trace mica, abundant caliche throughout interval, trace quartzite and granite gravels, no apparent bedding, abundant roots, dry. 1% gravel, 24% sand, 18% silt, 57% clay
					5867	2				
				1.90 /2.00	5866	3			CL	Sandy Clay with some silt - moderate yellowish brown (10YR5/4), coarse- to fine-grained sand, maximum gravel size 1" diameter, average size 1/2" diameter, well graded, sub-angular, medium plasticity, dominant lithology sand quartz with some rock fragments and trace dark minerals and mica, trace iron staining on grains, gravel primarily quartzite, granite with trace schist, abundant caliche throughout interval and coating on gravel, trace iron staining throughout interval, increase in gravel at 3.3-3.7', increase in caliche at 4.2-7.4', dry abundant roots, no apparent bedding. 6% gravel, 32% sand, 19% silt, 43% clay
					5865	4				
										No recovery for this interval
				1.70 /2.00	5864	5			CL	Sandy Clay with some silt - moderate yellowish brown (10YR5/4), as described above.
					5863	6				
										No recovery for this interval.
				1.70 /2.00	5862	7			CL	Sandy Clay with some silt - moderate yellowish brown (10YR5/4), as described above, increase to some iron staining and abundant caliche clasts, incompetent at 7.4-7.8', 1" diameter gravel, granite at 8.1-8.3', vertical healed fracture with iron at 8.3-8.4'
					5861	8				VOA sample obtained from this interval
	BH0003OWC02									No recovery for this interval.
					5860	9			CL	Sandy Clay with some silt - moderate yellowish brown (10YR5/4), as described above, abundant caliche layer at 9.0'. Top of bedrock at 9.2 ft
						10			CLAYSTONE	Claystone with some silt - grayish olive (10Y4/2) to dark yellowish orange (10Y6/6), very fine-grained sand, well sorted, sub-angular, approximately 15% porosity, argillaceous

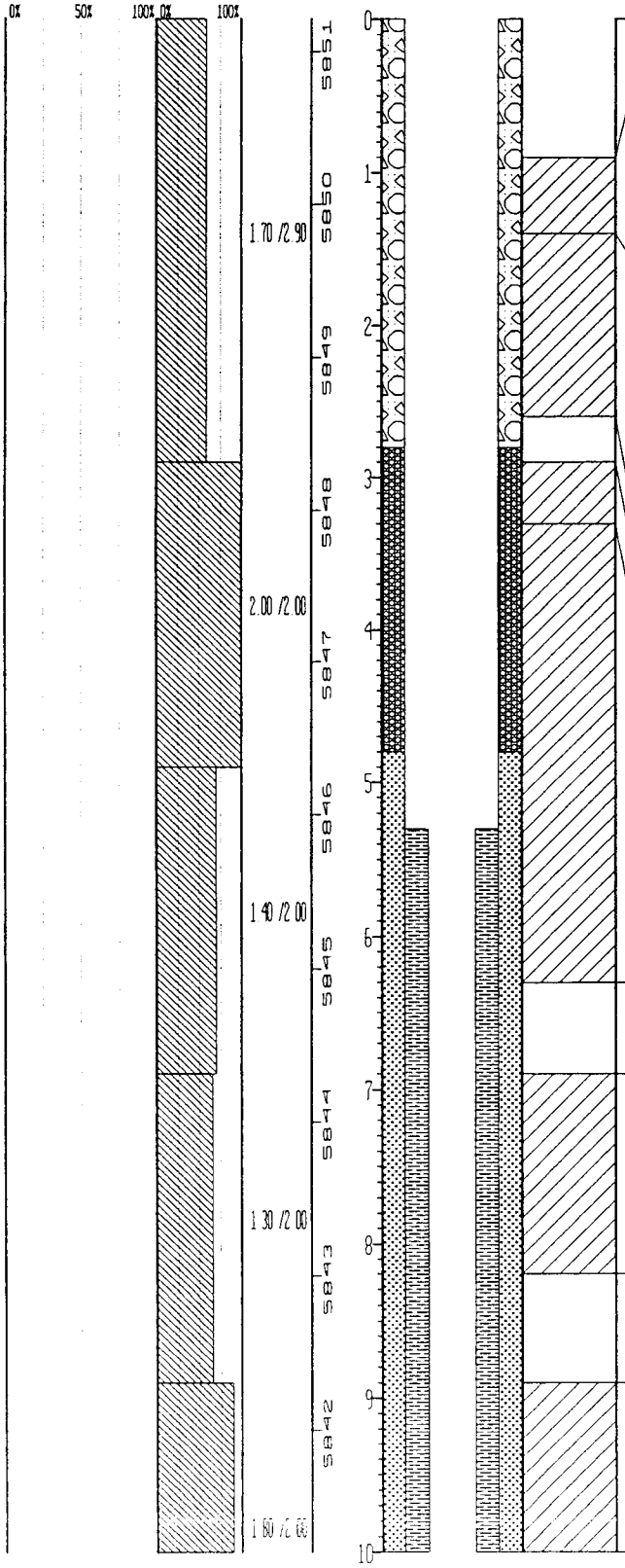
STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 13.4	GROUND ELEVATION (FT): 5869.13	PROJECT NUMBER: OU2RI	LOG OF BORING NUMBER:	
NORTH: 748364.73	AREA: 903 PAD	CASING DIAMETER (IN):	GEOLOGIST: L.A. GUST	01191	
EAST: 2086755.31	LOCATOR NUMBER: 613	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 10/17/91		
REMARKS: HOLLOW STEM AUGER.		BORING WAS ABANDONED DUE TO SHALLOW BEDROCK.			

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50%	100% 0% 100%	2.60 /3.00	5859	10				cement, non-friable, dominant lithology sand clear quartz with some iron nodules and trace caliche clasts and mica, some caliche clasts throughout interval, abundant iron staining throughout interval, concreation like iron nodules at 9.3', 9.5' and 10.5', very thin laminations of sand and clay at 10.0'-10.4', caliche layer at 9.8-10.0', highly healed fractures from 0-30 degree at 9.4-9.5', vertical healed fractures with iron at 9.7-9.8', some 0-30 degree healed fractures with iron and 90 degree at 10.0-10.8', dry, weathered. 8% sand, 10% silt, 82% clay.
					5858	11				
					5857	12			CLAYEY SANDSTONE	Clayey Sandstone with some silt - pale olive (10Y6/2) to dark yellowish orange (10Y6/6), very fine-grained sand, well sorted, sub-angular, approximately 20% porosity, argillaceous cement, moderately friable, dominant lithology sand clear quartz with some iron nodules and dark minerals, trace mica, some iron staining on grains, abundant iron staining throughout interval, some caliche throughout, trace clay clasts throughout, massive, 0-30 degree healed fractures with iron at 10.9-11.3', 45 to 90 degree healed fractures with iron and caliche at 11.4', dry, weathered. 56% sand, 18% silt, 26% clay.
				1.50 /1.50	5856	13				
					5855	14				No recovery for this interval.
					5854	15			CLAYEY SANDSTONE	Clayey Sandstone with some silt - pale olive (10Y6/2) to dark yellowish orange (10Y6/6), as described above.
					5853	16			SANDY CLAYSTONE	Sandy Claystone with some silt - pale olive (10Y6/2), very fine-grained sand, well sorted, approximately 15% porosity, sub-angular, argillaceous cement, slightly friable, dominant lithology sand clear quartz with some dark minerals and trace mica and green mineral, trace iron staining on grains, some iron staining throughout interval, some caliche clasts throughout interval, trace carbonaceous material at 12.3', concreation like iron nodules at 12.2' and 13.4', increase in caliche at 12.9-13.2' and 13.3-13.4', sand layer with clay clasts at 12.5-12.8' and 13.3', no apparent bedding, 0-30 degree healed fractures with caliche at 12.0-12.2', vertical healed fractures with iron and caliche iron at 12.2-12.5', vertical healed fractures with iron at 12.6-12.8' and 12.9-13.1', 0-30 degree healed fractures with iron at 13.3-13.4', dry, weathered. 30% sand, 21% silt, 49% clay.
					5852	17				
					5851	18				
					5850	19				Total depth at 13.4 ft
						20				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 18.9	GROUND ELEVATION (FT):	5851.21	PROJECT NUMBER:	002RI
NORTH: 748335.33	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST: 2087062.48	LOCATOR NUMBER: 614	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/19/92

LOG OF BORING NUMBER: 01291

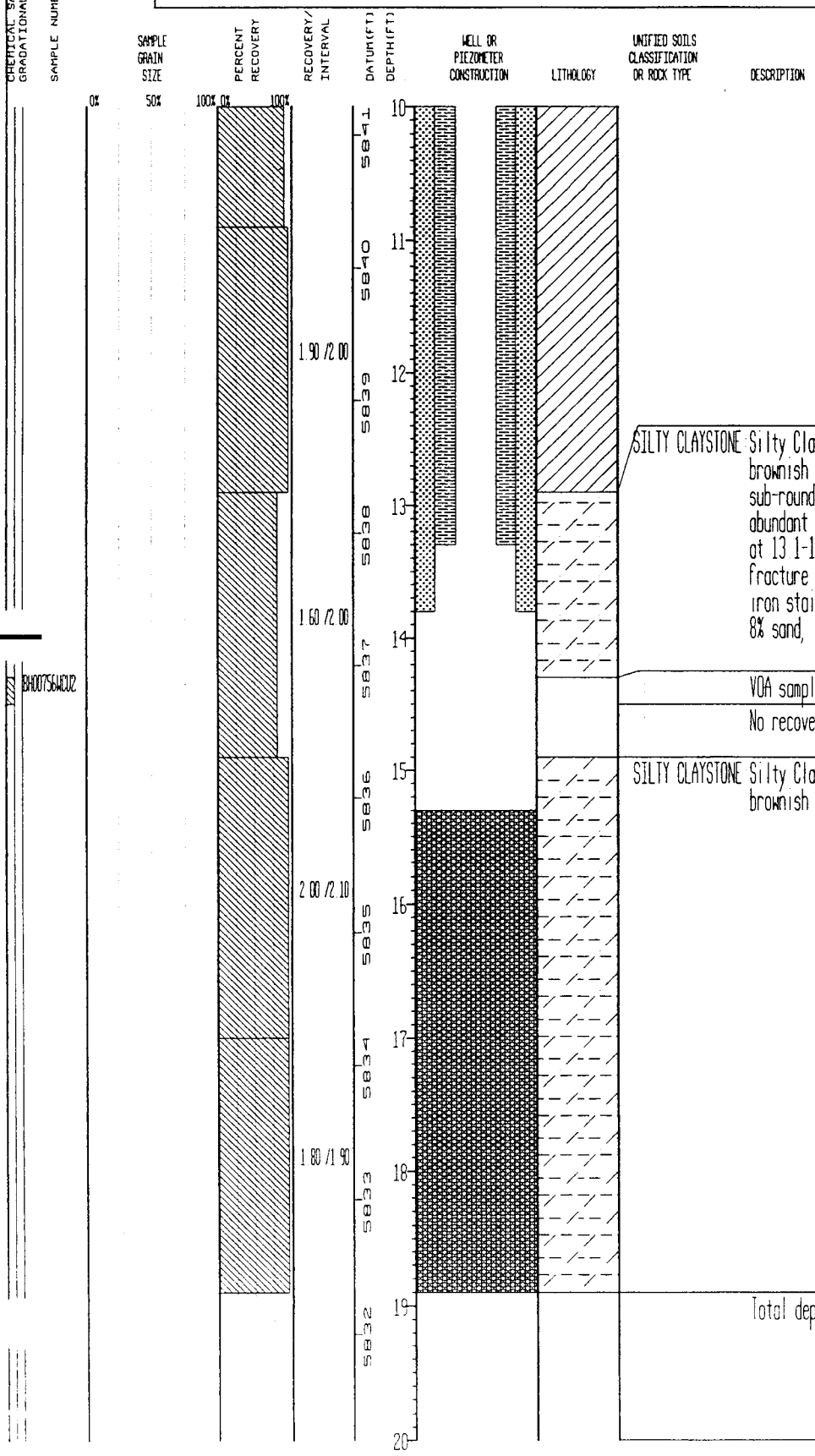
REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 4.8 FT. - 2.8 FT. BACKFILL MATERIAL: BENTONITE 18.9 FT. - 15.3 FT.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	Top soil, start of boring at 0.90 ft
CL	Sandy Clay with some silt and gravel - grayish brown (5YR3/2), maximum gravel diameter .13', average .07', fine- to coarse-grained sand, well graded, gravel is angular, sand is angular to sub-rounded, low to moderate plasticity, gravel is primarily quartzite, sand contains abundant carbonaceous/organic material, quartz, some rock fragments, feldspar, trace mica, no apparent bedding, moist. 11% gravel, 29% sand, 25% silt, 35% clay
CL	Silty Clay with some sand - moderate brown (5YR3/4) to very pale orange (10YR8/2), maximum gravel diameter .1', average .04', fine- to coarse-grained sand, poorly graded, gravel is sub-rounded to rounded, sand is sub-angular to rounded, medium to high plasticity, gravel is primarily quartzite and granite, sand contains abundant quartz, some rock fragments, dark minerals, trace mica, interlaminated sandy clay/caliche, small caliche nodules throughout, moist to dry. 2% gravel, 22% sand, 24% silt, 52% clay
	No recovery for this interval
CL	Silty Clay with some sand - moderate brown (5YR3/4) to very pale orange (10YR8/2), as described above
CL	Sandy Clay with some silt - light olive gray (5Y6/1) to olive gray (5Y4/1), dark yellowish orange (10YR6/6) where iron stained (3.5-4.1', 5.5', 5.8', 6.9', 9.0', 10.1'), maximum gravel diameter > .25' at 12.5', fine-grained sand, poorly graded, gravel cobble is rounded, sand is sub-angular to rounded, medium to high plasticity, gravel cobbles are quartzite, sand contains abundant quartz, trace rock fragments/dark minerals, feldspar, calcrete, iron stain, caliche nodules throughout, concentrated at 4.3', 5.3', 6.0', 7.1', 8.1', 9.2', 10.3-11.2', 12.0-12.5', trace carbonaceous material throughout, moist. 1% gravel, 23% sand, 12% silt, 64% clay
	No recovery for this interval
CL	Sandy Clay with some silt - light olive gray (5Y6/1) to olive gray (5Y4/1), as described above
	No recovery for this interval
CL	Sandy Clay with some silt - light olive gray (5Y6/1) to olive gray (5Y4/1), as described above. Top of bedrock at 12.9 ft

STATE PLANE COORDINATE		TOTAL DEPTH (FT): 18.9	GROUND ELEVATION (FT):	5851.21	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	748335.33	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	01291
EAST:	2087062.48	LOCATOR NUMBER: 614	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/19/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 4.8 FT. - 2.8 FT. BACKFILL MATERIAL: BENTONITE 18.9 FT. - 15.3 FT.



SILTY CLAYSTONE: Silty Claystone with some sand - light olive-gray (5Y5/2) to brownish gray (5YR4/1), very fine-grained, very well sorted, sub-rounded to rounded, argillaceous cement, slightly friable, abundant frosted quartz, trace dark minerals, mottled, caliche at 13.1-13.6', iron staining at 15.2-16.7', 17.6-18.9', 90 degree fracture at 18.0-18.3', 80 degree fracture at 18.5-18.9', both iron stained, moist.
8% sand, 14% silt, 78% clay.

VOA sample obtained from this interval.

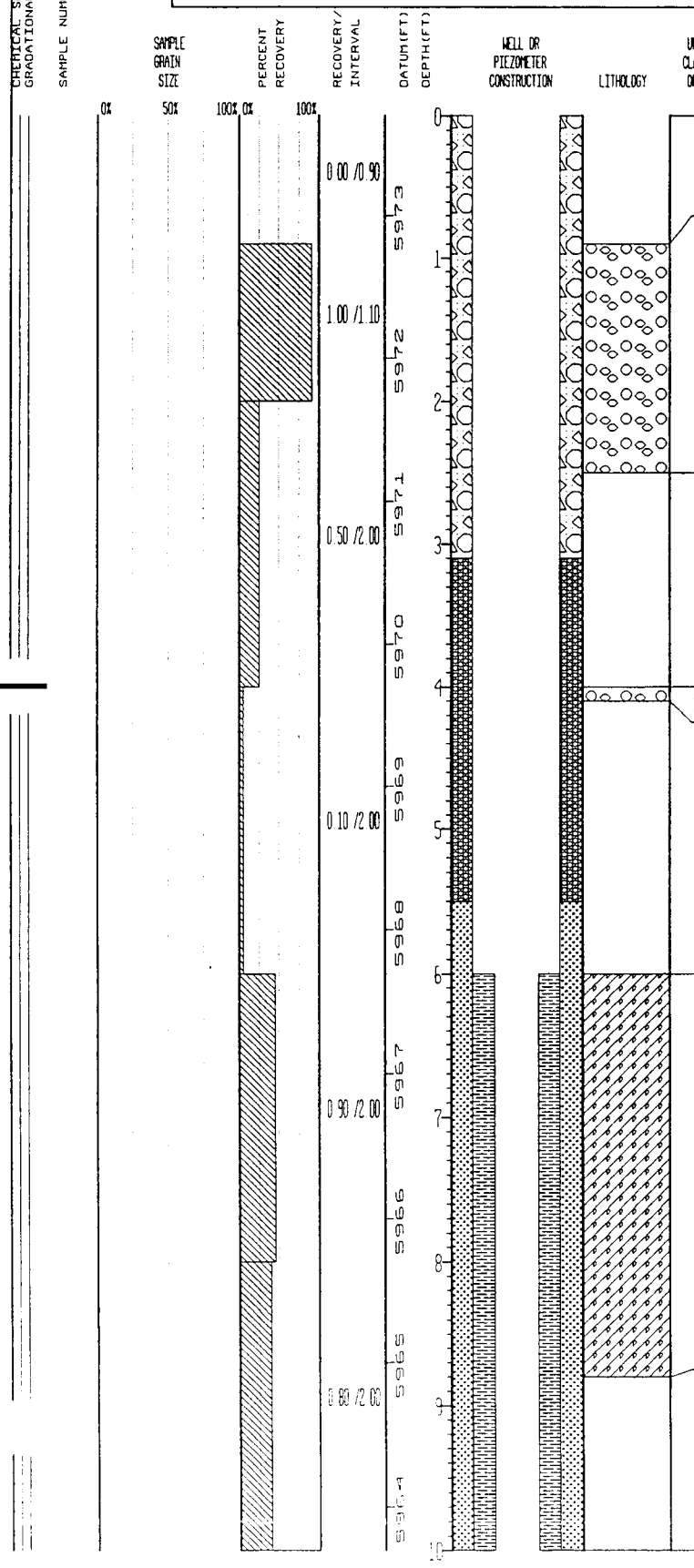
No recovery for this interval.

SILTY CLAYSTONE: Silty Claystone with some sand - light olive gray (5Y5/2) to brownish gray (5YR4/1), as described above

Total depth at 18.9 ft

STATE PLANE COORDINATE		TOTAL DEPTH (FT): 22.0	GROUND ELEVATION (FT): 5973.70	PROJECT NUMBER: OU2RI	LOG OF BORING NUMBER:
NORTH: 749401.97		AREA: MOUND	CASING DIAMETER (IN): 2.0	GEOLOGIST: J.A. JEHN	01391
EAST: 2085225.75		LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 11/22/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 5.5 FT. - 3.0 FT. BACKFILL MATERIAL: BENTONITE 22.0 FT. - 16.0 FT.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	Top soil, start of boring at 0.90 ft.
GW	Sandy Gravel - dark yellowish brown (10YR4/2), maximum gravel size 2" diameter, average 1/4" diameter, coarse- to fine-grained sand, sub-angular, well graded, low plasticity, gravel primarily quartzite, dominant lithology sand quartzite with rock fragments with some quartz and trace K-spar, mica and dark minerals, some caliche throughout and coating on gravel, no apparent bedding, wet from snow melt, some roots throughout (possible fill), abundant caliche at 2.2-2.5'. 75% gravel, 22% sand, 1% silt, 2% clay
	No recovery for this interval.
GW	Sandy Gravel - dark yellowish brown (10YR4/2), as described above.
	No recovery for this interval.
SC	Clayey Sand with some silt - dusky yellow (5Y6/4), medium- to very fine-grained sand, maximum size gravel 1/2" diameter, average size 1/4" diameter, poorly graded, sub-angular sand, sub-angular to sub-rounded gravel, low to medium plasticity, dominant lithology sand clear quartz with some rock fragments and iron nodules, trace K-spar, mica and dark minerals, gravel primarily quartzite with some granite and trace sandstone clasts, some caliche clasts and limonite throughout, trace carbonaceous material throughout, no preferred bedding orientation, moist, bedrock like appearance, (possible fill) 2% gravel, 55% sand, 13% silt, 30% clay
	No recovery for this interval

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 22.0	GROUND ELEVATION (FT):	5973.70	PROJECT NUMBER:	OU2RI
NORTH: 749401.97	AREA: MOUND	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.A. JEHN
EAST: 2085225.75	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/22/91

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 5.5 FT. - 3.0 FT. BACKFILL MATERIAL: BENTONITE 22.0 FT. - 16.0 FT.

LOG OF BORING NUMBER: 01391

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%	2.00 /2.00	5963	10			SC:	Clayey Sand with some silt - dusky yellow (5Y6/4), as described above, abundant carbonaceous material at 11.1-11.3'.
					5962	11				
				1.80 /2.00	5961	12			CL:	Sandy Clay - medium dark gray (N4) to light olive gray (5Y6/1), fine- to very fine-grained sand, average 1/4" diameter gravel, poorly graded, sub-angular, medium plasticity, dominant lithology sand clear quartz with trace dark minerals, gravel primarily quartzite, trace caliche and limonite throughout, trace clay clasts throughout, no apparent bedding, wet, trace roots, bedrock like appearance. 1% gravel, 26% sand, 4% silt, 69% clay.
	BH001294C02				5960	13				VOA sample obtained from this interval
				2.00 /2.00	5959	14			CL:	Sandy Clay - medium dark gray (N4) to light olive gray (5Y6/1), as described above. Top of bedrock at 14.5 ft.
					5958	15			SANDY CLAYSTONE	Sandy Claystone with some silt - light olive gray (5Y6/1), very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with trace dark minerals, trace caliche, limonite and clay clasts throughout, trace horizontal bedding at 15.4-15.5', highly broken at 15.0-15.6', no apparent fractures, wet, (gradational contact between soil and bedrock), weathered. 25% sand, 9% silt, 66% clay.
				2.00 /2.00	5957	16			CLAYSTONE:	Claystone with some sand - dark yellowish orange (10YR6/6) to pale yellowish brown (10YR6/2), very fine-grained sand, well sorted, sub-angular, approximately 5% porosity, argillaceous cement, non- to slightly friable, dominant lithology sand clear quartz with trace mica, iron nodules and dark minerals, abundant limonite and some clay clasts and carbonaceous material throughout, abundant 0-90 degree healed fractures with iron and manganese at 17.4-18.0', 0-30 degree healed fractures with iron at 16.2-16.6', no preferred bedding orientation, highly broken at 18.0-18.5', wet, weathered. 13% sand, 4% silt, 83% clay.
					5956	17				
				2.00 /2.00	5955	18			CLAYSTONE	Claystone with some silt - medium light gray (N6), very fine-grained sand, well sorted, sub-angular, approximately 3% porosity, argillaceous cement throughout, non-friable, dominant lithology sand quartz with some iron nodules with trace dark minerals, trace limonite, some carbonaceous throughout, no preferred bedding orientation, brecciated appearance, 45 degree healed fracture with iron at 21.8-22.0', wet, some clay clasts throughout, unweathered. 3% sand, 9% silt, 88% clay.
					5954	19				
						20				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 22.0	GROUND ELEVATION (FT):	5973.70	PROJECT NUMBER:	OU2RI
NORTH: 749401.97	AREA: MOUND	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.A. JEHN
EAST: 2085225.75	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/22/91

LOG OF BORING NUMBER: 01391

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 5.5 FT. - 3.0 FT. BACKFILL MATERIAL: BENTONITE 22.0 FT. - 16.0 FT.

CHEMICAL SAMPT / GRADATIONAL SI	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%	2.00 /2.00	5953	20				
					5952	21				
						22				Total depth at 22.0 ft.
					5951	23				
					5950	24				
					5949	25				
					5948	26				
					5947	27				
					5946	28				
					5945	29				
					5944	30				

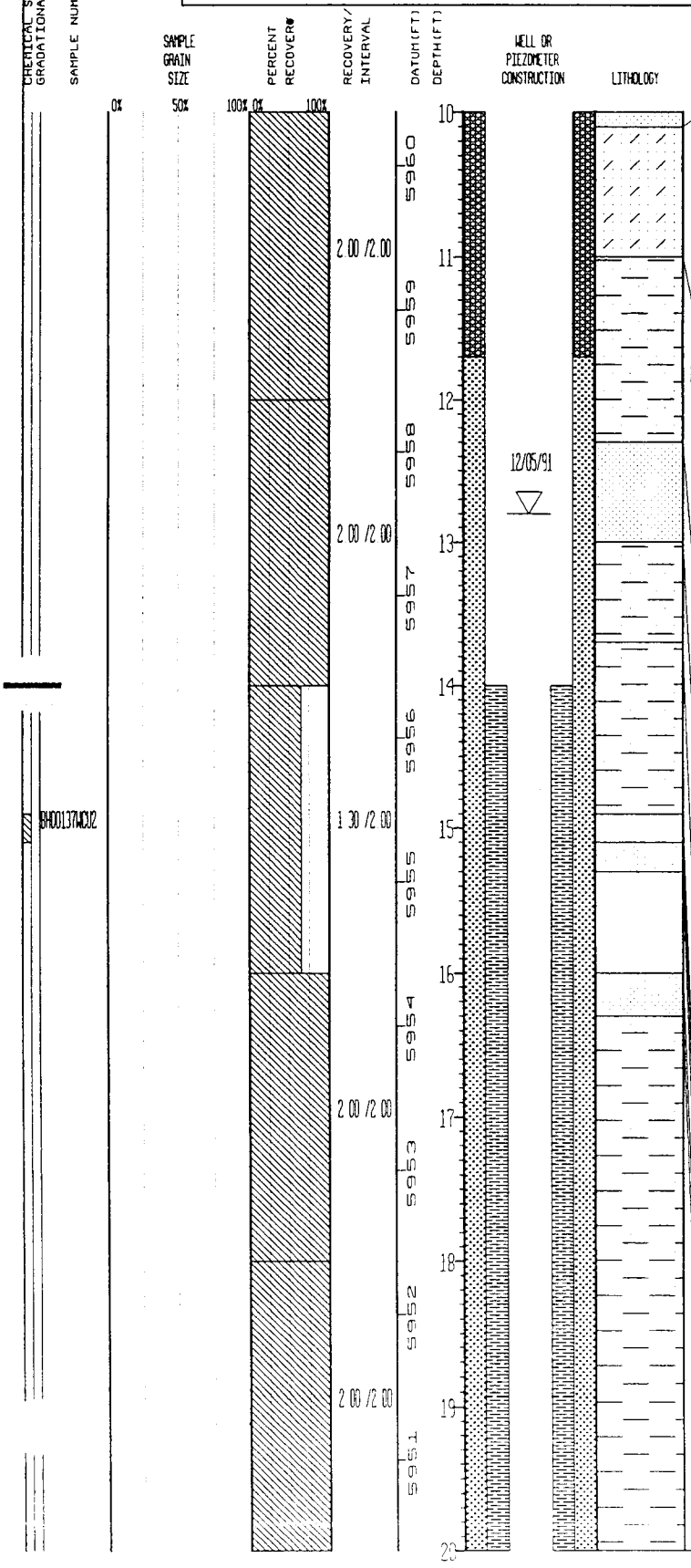
STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 30.0	GROUND ELEVATION (FT):	5970.37	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749430.09	AREA: MOUND	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	01491
EAST:	2085474.27	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	12/04/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 11.7 FT. - 8.6 FT. BACKFILL MATERIAL: BENTONITE 30.0 FT. - 26.0 FT.

CHEMICAL SAMPT GRADATIONAL S/	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%							Top soil, start of boring at 0.90 ft.
				0.00 /0.90	5970	0			SC	Gravelly Sand with some clay - moderate brown (5YR3/4), coarse- to fine-grained sand, maximum size gravel 1/2" diameter, average 1/4" diameter, poorly graded, sub-angular, low to medium plasticity, dominant lithology sand rock fragments with abundant quartz and some dark minerals, trace mica and K-spar, gravel primarily quartzite and granite, abundant caliche throughout, no apparent bedding, moist. 27% gravel, 58% sand, 3% silt, 12% clay. Top of bedrock at 1.6 ft.
				1.60 /1.30	5969	1			SANDY CLAYSTONE	Sandy Claystone with some silt with interbedded sand layers - light olive (10Y5/4) to dark yellowish orange (10YR6/6), fine- to very fine-grained sand, moderately sorted, approximately 15% porosity, sub-angular, argillaceous cement, moderately friable, dominant lithology sand clear quartz with some dark minerals and trace mica, K-spar and iron nodules, abundant limonite throughout, some carbonaceous material throughout, abundant caliche controlled by fractures and layers at 2.2-2.4', 2.6-2.7', 3.0-3.1', 4.5-4.6', sand layer at 1.9-2.1', trace 30-60 degree healed fractures with manganese and gray gouge at 3.1-3.4', no apparent bedding, dry, weathered. 33% sand, 14% silt, 48% clay.
	BH0013W012			1.60 /2.00	5968	2				
					5967	3				
					5966	4				VOA sample obtained from this interval
				1.80 /1.80	5965	5			SANDY CLAYSTONE	Sandy Claystone with some silt with interbedded sand layers- light olive (5Y5/4) to dark yellowish orange (10YR6/6), as described above
					5964	6			CLAYEY SANDSTONE	Clayey Sandstone with some silt - light olive (10Y5/4) to dark yellowish orange (10YR6/6), fine- to very fine-grained sand, well sorted, sub-angular, approximately 20% porosity, argillaceous cement, moderately friable, dominant lithology sand clear quartz with trace dark minerals and mica, abundant limonite and caliche throughout, some carbonaceous material throughout, caliche layers at 5.1-5.2' and 5.5-5.6', some healed fractures with gray material at 5.2-6.0', 90 degree healed fracture with iron at 6.1-6.2', 90 degree healed fracture with iron and manganese at 6.7-6.9', trace horizontal bedding at 7.8-7.9', dewatering structure at 7.7-7.8', moist, weathered. 51% sand, 17% silt, 32% clay.
				2.10 /2.00	5963	7				
					5962	8			SANDSTONE	Sandstone with some silt - dark yellowish orange (10YR6/6), fine- to very fine-grained sand, moderately sorted, sub-rounded to rounded, approximately 25% porosity, silica cement, highly friable, dominant lithology sand clear quartz with some dark minerals and trace mica and iron nodules, abundant limonite throughout, trace caliche and carbonaceous material throughout, some caliche at 8.0-8.2', some wood fragments at 8.9', iron nodule at 9.8', trace low angle bedding throughout, 90 degree healed fracture with caliche at 8.9-9.3', moist, weathered. 83% sand, 15% silt, 2% clay.
				2.00 /2.00	5961	9				
						10				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 30.0	GROUND ELEVATION (FT):	5970.37	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749430.09	AREA: MOUND	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	01491
EAST:	2085474.27	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	12/04/91	

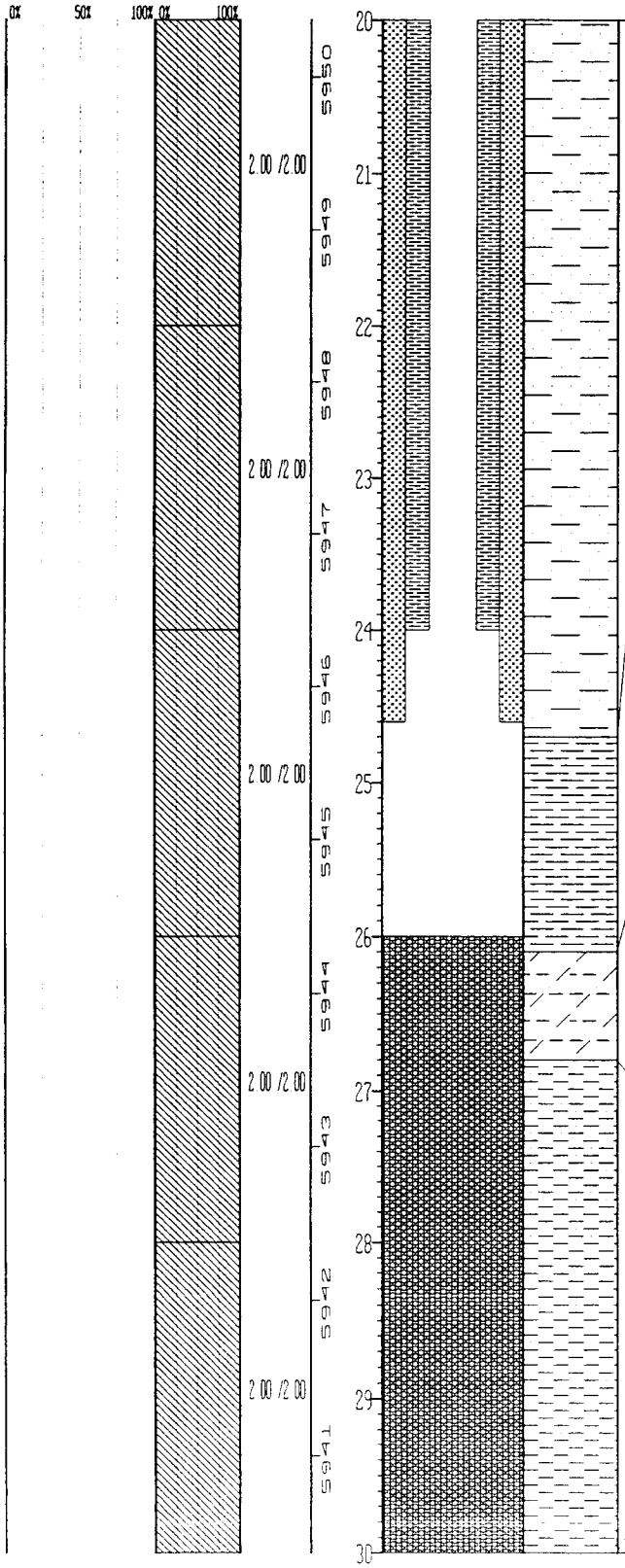
REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 11.7 FT. - 8.6 FT. BACKFILL MATERIAL: BENTONITE 30.0 FT. - 26.0 FT.



SILTY SANDSTONE	Silty Sandstone with some clay - pale olive (10Y6/2), fine- to very fine-grained sand, well sorted, sub-rounded, approximately 20% porosity, argillaceous cement, moderately friable, dominant lithology sand clear quartz with trace dark minerals and mica, some limonite and carbonaceous material throughout, trace caliche, horizontal bedding throughout, trace vertical healed fracture with caliche at 10.3-11.0', moist, weathered 64% sand, 29% silt, 7% clay.
CLAYEY SANDSTONE	Clayey Sandstone with some silt and interbedded clay layers- grayish olive (10Y4/2) to dark yellowish orange (10YR6/6), fine- to very fine-grained sand, well sorted, sub-rounded, approximately 20% porosity, argillaceous cement, slightly to moderately friable, dominant lithology sand clear quartz with trace dark minerals and mica, some iron staining on grains, abundant limonite throughout, some carbonaceous material and clay clasts throughout, caliche clast at 11.9', clay layers at 12.3-12.4' and 12.1-12.2', no apparent bedding or fractures, moist, weathered. 57% sand, 11% silt, 32% clay.
SANDSTONE	Sandstone with some silt - dusky yellow (5Y6/4), fine- to very fine-grained sand, well sorted, sub-rounded to rounded, approximately 25% porosity, silica cement, highly friable, dominant lithology sand clear quartz with trace dark minerals, some limonite throughout, massive, 90 degree healed fracture with iron at 12.7-13.0', moist, weathered 86% sand, 12% silt, 2% clay.
CLAYEY SANDSTONE	Clayey Sandstone with some silt - pale olive (10Y6/2) to dusky yellow (5Y6/4), fine- to very fine-grained sand, sub-rounded, well sorted, approximately 15% porosity, argillaceous cement, slightly to moderately friable, dominant lithology sand clear quartz with trace dark minerals and iron nodules, some iron staining on grains, abundant limonite and some carbonaceous material throughout, low angle bedding throughout, some soft sediment deformation throughout, no apparent fractures, moist 61% sand, 5% silt, 34% clay.
CLAYEY SANDSTONE	Clayey Sandstone with some silt -dusky yellow (5Y6/4), fine- to very fine-grained sand, well sorted, sub-rounded to rounded, approximately 25% porosity, silica cement, highly friable, dominant lithology sand clear quartz with trace dark minerals, trace limonite throughout, low angle bedding, no apparent fractures, saturated, weathered. 71% sand, 3% silt, 26% clay.
	VOA sample obtained from this interval
SANDSTONE	Sandstone with some silt - dusky yellow (5Y6/4), as described above, clay laminations with limonite at 15.2'
	No recovery for this interval
SANDSTONE	Sandstone with some silt - dusky yellow (5Y6/4), as described above, dewatering structure at 16.3'

STATE PLANE COORDINATE		TOTAL DEPTH (FT): 30.0	GROUND ELEVATION (FT): 5970.37	PROJECT NUMBER: OU2RI	LOG OF BORING NUMBER:
NORTH:	749430.09	AREA MOUND	CASING DIAMETER (IN): 2.0	GEOLOGIST: L.A. GUST	01491
EAST:	2085474.27	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 12/04/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 11.7 FT. - 8.6 FT. BACKFILL MATERIAL: BENTONITE 30.0 FT. - 26.0 FT.



CLAYEY SANDSTONE: Clayey Sandstone with some silt with interbedded clay layers - dusky yellow (5Y6/4) to medium gray (N5) with some dark yellowish orange (10YR6/6), fine- to very fine-grained sand, well sorted, sub-rounded to rounded, approximately 25% porosity, argillaceous and silica cement, slightly to highly friable, dominant lithology sand clear quartz with trace dark minerals and mica, some iron staining on grains, some limonite throughout, some carbonaceous material at 18.1-19.9', 20.6-21.1', 24.0-24.7', low angle bedding at 16.6-17.1', 20 degree bedding with some limonite and carbonaceous material along planes at 18.9-19.9', trace 20 degree cross bedding at 20.6-20.8', some 20 degree bedding controlling limonite and carbonaceous material at 21.3-21.6' and 22.2-22.7', clay layers throughout, trace vertical fracture healed with caliche at 20.0-20.5'.
71% sand, 3% silt, 26% clay

CLAYSTONE: Claystone with some silt - medium gray (N5), very fine-grained sand, well sorted, sub-angular to sub-rounded, approximately 10% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with trace dark minerals, trace iron staining on grains, some limonite and carbonaceous material throughout, some wood fragments throughout, some soft sediment deformation throughout, no apparent bedding, some 75 degree healed fractures with iron and manganese at 24.9-25.1', 90 degree healed fractures with iron and gray material at 25.2-25.9', sand layers at 25.4-25.6' and 25.9-26.0', saturated, slightly weathered
4% sand, 12% silt, 86% clay

SILTY CLAYSTONE: Silty Claystone - dusky yellow (5Y6/2), very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz, some iron staining on grains, some limonite throughout, no apparent bedding or fractures, moist, weathered, sand layer at 26.6-26.7.
3% sand, 26% silt, 71% clay

SANDY CLAYSTONE: Sandy Claystone - medium gray (N5) to dusky yellow (5Y6/4), fine- to very fine-grained sand, well sorted, sub-angular to sub-rounded, approximately 10% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with trace dark minerals, some limonite throughout, trace clay clasts, 15 degree bedding at 27.4-27.6', 29.0-29.3' and 29.8-30.0', low angle bedding at 29.3-29.6', 90 degree fracture with 1/2" alteration zone at 26.8-27.2', some 70 degree healed fractures with iron at 29.8-30.0', large dewatering structure with abundant limonite zone at 26.8-27.4', sand layer at 29.0-29.3', blocky at 27.9-30.0', moist, slightly weathered, trace caliche at 29.3-29.4', trace bioturbation at 29.3-29.6
22% sand, 9% silt, 69% clay

Total depth at 30.0 ft

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 24.0	GROUND ELEVATION (FT):	5965.78	PROJECT NUMBER:	OU2/RI
NORTH:	749504.01	AREA: MOUND	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST:	2086018.03	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/26/91

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 9.1 FT. - 5.9 FT. BACKFILL MATERIAL: BENTONITE 24.0 FT. - 20.0 FT.

LOG OF BORING NUMBER: 01791

CHEMICAL SAMP/ GRADATIONAL S	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%							Top soil, start of boring at 0.90 ft.
				0.00 /0.90	5965	0			GC:	Sandy Gravel with some clay - grayish black (N2), maximum size gravel 2" diameter, average 1" diameter, coarse- to fine-grained sand, well graded, sub-angular, low to medium plasticity, gravel primarily quartzite with some quartz and granite with trace sandstone clasts, dominant lithology sand rock fragments with abundant quartz and some dark minerals and trace mica, abundant caliche throughout, no apparent bedding, moist, (possible fill). 67% gravel, 19% sand, 3% silt, 11% clay.
				1.20 /1.40	5964	1				
						2			SM:	Sand with some silt - dusky yellow (5Y6/4), fine- to very fine-grained sand, average size gravel 1/2" diameter, poorly graded, sub-angular, low plasticity, dominant lithology sand clear quartz with trace dark minerals and mica, some iron staining on grains, gravel primarily granite, abundant limonite and some iron nodules throughout, no apparent bedding, moist, bedrock like appearance. 3% gravel, 82% sand, 11% silt, 4% clay.
				1.60 /1.80	5963	3				
					5962	4			GW	Sandy Gravel - light brown (5YR5/6), maximum size gravel greater than 2" diameter, average 1" diameter, coarse- to fine-grained sand, angular to sub-angular, sub-angular sand, low plasticity, gravel primarily quartzite with some granite, dominant lithology sand quartz with abundant rock fragments and trace K-spar, dark minerals, pyrite and mica, some iron staining on grains, iron staining throughout interval, trace carbonaceous throughout, some caliche throughout, no apparent bedding, moist. 72% gravel, 24% sand, 1% silt, 3% clay.
				1.60 /1.90	5961	5				
					5960	6				No recovery for this interval.
									GW	Sandy Gravel - light brown (5YR5/6), as described above.
				0.90 /2.00	5959	7				No recovery for this interval. Top of bedrock at 8.0 ft.
					5958	8			SILTY SANDSTONE	Silty Sandstone - pale olive (10Y6/2) to dark yellowish orange (10YR6/6), fine- to very fine-grained sand, well sorted, sub-angular, approximately 20% porosity, argillaceous cement, highly friable, dominant lithology sand clear quartz with some dark minerals, trace iron staining on grains, some limonite throughout, trace caliche and iron nodules throughout, trace carbonaceous material and clay clasts throughout, trace low angle bedding at 8.8-9.0', trace horizontal bedding at 9.3-9.8', thin clay laminations at 8.3-8.5' and 9.5', moist, weathered. 61% sand, 35% silt, 4% clay.
				2.00 /2.00	5957	9				
					5956	10				VOA sample obtained from this interval.
									SILTY SANDSTONE	Silty Sandstone - pale olive (10Y6/2) to dark yellowish orange

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STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 24.0	GROUND ELEVATION (FT):	5965.78	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 749504.01	AREA: MOUND	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	01791
EAST: 2086018.03	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/26/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 9.1 FT. - 5.9 FT. BACKFILL MATERIAL: BENTONITE 24.0 FT. - 20.0 FT.

CHEMICAL SAMPT / GRADATIONAL S.	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
						10				(10YR6/6), as described above, some carbonaceous material at 9.8-10.0', abundant carbonaceous material and limonite at 10.7-10.9', thin laminations of clay, sand and silt at 10.9-11.2', trace 90 degree healed fracture with iron at 11.0-11.1'
				2.00 /2.00	5955	11			SANDY CLAYSTONE	Sandy Claystone with some silt - light olive gray (5Y5/2) to dark yellowish orange (10YR6/6), very fine-grained sand, well sorted, sub-angular, argillaceous cement, approximately 20% porosity, slightly friable, dominant lithology sand clear quartz with some dark minerals, abundant limonite throughout, trace manganese and carbonaceous material throughout, trace clay clasts, wood fragments at 11.7', some horizontal bedding throughout, no apparent fractures, moist, weathered. 19% sand, 9% silt, 72% clay
					5954	12	01/06/92			
				2.10 /2.10	5953	13			SILTY SANDSTONE	Silty Sandstone with interbedded clay layers - dusky yellow (5Y6/4), fine- to very fine-grained sand, well sorted, sub-angular, approximately 20% porosity, argillaceous cement, highly friable, dominant lithology sand clear quartz with some dark minerals and trace mica, trace iron staining on grains, some limonite, manganese and carbonaceous material throughout, caliche at 13.1-13.3', some low angle bedding at 12.2-12.6' and 14.1-15.4', some horizontal bedding at 12.8-12.9' and 13.0-13.2', very thin clay lamination at 12.9', thin clay laminations at 14.1' and 15.4-15.6', trace vertical healed fractures with caliche and silt at 13.1-13.6', abundant limonite at 15.0', saturated, weathered. 68% sand, 29% silt, 3% clay
					5952	14				
				2.00 /1.90	5951	15	11/25/9			
	BH0014012				5950					VOA sample obtained from this interval
						16			SILTY SANDSTONE	Silty Sandstone with interbedded clay layers - dusky yellow (5Y6/4), as described above, some horizontal bedding at 16.0-16.4', thin clay laminations at 16.4-16.5'
				2.00 /2.00	5949	17			SILTY SANDSTONE	Silty Sandstone with some clay - grayish red (5R4/2) with dusky yellow (5Y6/4) mottling, fine- to very fine-grained sand, well sorted, sub-angular, approximately 18% porosity, argillaceous cement, moderately friable, dominant lithology sand clear quartz with some dark minerals and trace mica, some iron staining on grains, some limonite and hematite throughout, abundant manganese and healed fractures with manganese throughout, some horizontal bedding throughout, saturated, no apparent fractures, weathered, organic odor. 65% sand, 30% silt, 5% clay
					5948	18				
				2.00 /2.00	5947	19			SANDY CLAYSTONE	Sandy Claystone with some silt - light olive gray (5Y5/2) to dark yellowish orange (10YR6/6), very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with trace dark minerals and mica, abundant limonite throughout, some manganese and carbonaceous material throughout, sand layer
					5946	20				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 24.0	GROUND ELEVATION (FT):	5965.78	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 749504.01	AREA: MOUND	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	01791
EAST: 2086018.03	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/26/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 9.1 FT. - 5.9 FT. BACKFILL MATERIAL: BENTONITE 24.0 FT. - 20.0 FT.

CHEMICAL SAMPLE / GRADATIONAL SAMPLE / SAMPLE NUMBER / DEPTH

SAMPLE GRAIN SIZE: 0% 50% 100%

PERCENT RECOVERY: 0% 100%

RECOVERY/INTERVAL: 2.00/2.00; 2.00/2.00

DATUM (FT): 5945, 5944, 5943, 5942, 5941, 5940, 5939, 5938, 5937, 5936

DEPTH (FT): 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30

WELL OR PIEZOMETER CONSTRUCTION / LITHOLOGY

UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	with horizontal bedding at 17.6-17.9', sand layer at 18.0-18.2', 18.6-19.0', and 19.8-19.9', plant fragments at 19.1', abundant 60 degree healed fractures with manganese at 19.1-19.8', trace 30 degree healed fracture with iron at 19.7', saturated, weathered. 78% sand, 6% silt, 16% clay.
SILTY SANDSTONE	Silty Sandstone with interbedded clay layers - dusky yellow (5Y6/4) to pale olive (10Y6/2), fine- to very fine-grained sand, well sorted, sub-angular, approximately 20% porosity, argillaceous cement, moderately friable, dominant lithology sand clear quartz with trace dark minerals and mica, abundant limonite throughout, some manganese staining and carbonaceous material throughout, trace sandstone and clay clasts throughout, trace low angle bedding at 20.9-21.2', trace horizontal bedding at 21.4-21.6', clay layer at 20.1-20.2', well developed 80 degree healed fracture with iron at 20.5-20.8', saturated, weathered. 66% sand, 30% silt, 4% clay.
SANDY CLAYSTONE	Sandy Claystone with some silt and interbedded sand layers - olive gray (5Y3/2), very fine-grained sand, well sorted, sub-angular, approximately 12% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with trace dark minerals and mica, trace iron staining on grains, some limonite and carbonaceous material throughout, low angle bedding at 21.6-22.0' and 23.2-23.8', sand layer with some clay clasts at 23.2-23.4', trace horizontal bedding throughout, wood fragments at 22.1', 60-90 degree healed fracture with iron at 22.2-22.4', abundant limonite at 23.2-23.8', saturated, weathered. 18% sand, 5% silt, 77% clay.
SILTY SANDSTONE	Silty Sandstone - dark yellowish orange (10YR6/6), fine- to very fine-grained sand, well sorted, sub-angular to sub-rounded, approximately 25% porosity, argillaceous cement, highly friable, dominant lithology sand clear quartz with some dark minerals and trace mica, some iron staining on grains, abundant limonite throughout, some hematite throughout, massive, no apparent bedding, 0 degree healed fracture with iron at 23.8', saturated, weathered. 58% sand, 38% silt, 4% clay.
	Total depth at 24.0 ft

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 35.9	GROUND ELEVATION (FT):	5971.76	PROJECT NUMBER:	OU2RI
NORTH:	749437.81	AREA: MOUND	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST:	2086023.25	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/13/91

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 18.0 FT. - 14.0 FT. BACKFILL MATERIAL: BENTONITE 35.9 FT. - 32.0 FT.

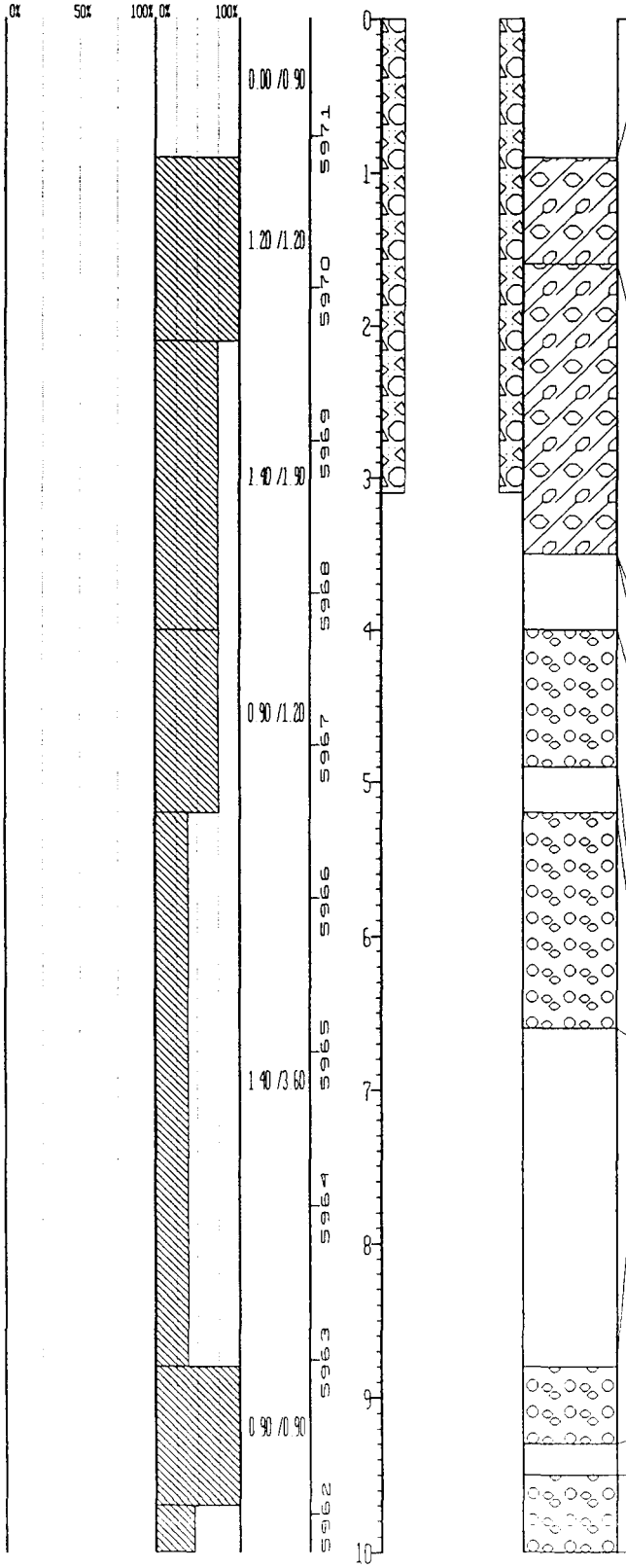
LOG OF BORING NUMBER: 01891

TOTAL DEPTH

CHEMICAL SAMPLE
GRADATIONAL SAMPLE

SAMPLE NUMBER

SAMPLE GRAIN SIZE (0% 50% 100%) | PERCENT RECOVERY (0% 100%) | RECOVERY/INTERVAL | DATUM (FT) | DEPTH (FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION



Top soil, start of boring at 0.90 ft.

GC: Sandy Gravel with some clay - grayish black (N2), maximum size gravel 1" diameter, average 1/2" diameter, coarse- to fine-grained sand, well graded, angular to sub-angular gravel, sub-angular sand, low to medium plasticity, gravel primarily quartzite with some granite, dominant lithology sand rock fragments with abundant quartz and some dark minerals and trace mica, some caliche throughout, no apparent bedding, slightly moist, some roots present
59% gravel, 27% sand, 3% silt, 11% clay.

GC: Clayey Gravel with some sand - pinkish gray (5YR8/1), maximum size gravel 1 1/2" diameter, average 1" diameter, medium- to fine-grained sand, moderately to well graded, sub-angular, low plasticity, gravel primarily quartzite with some granite and trace quartz, dominant lithology sand quartz with some rock fragments and trace mica and dark minerals, abundant caliche, no apparent bedding, dry, some roots
55% gravel, 12% sand, 2% silt, 31% clay

No recovery for this interval.

No recovery for this interval

GW: Sandy Gravel - pinkish gray (5YR8/1), maximum gravel size 2" diameter, average 1" diameter, coarse- to fine-grained sand, well graded, sub-angular, low plasticity, gravel primarily quartzite with some quartz, dominant lithology sand quartz with abundant rock fragments and trace dark minerals and mica, abundant caliche throughout, trace limonite and carbonaceous material, no apparent bedding, moist
67% gravel, 28% sand, 1% silt, 4% clay

No recovery for this interval

GW: Sandy Gravel - pinkish gray (5YR8/1), as described above.

No recovery for this interval

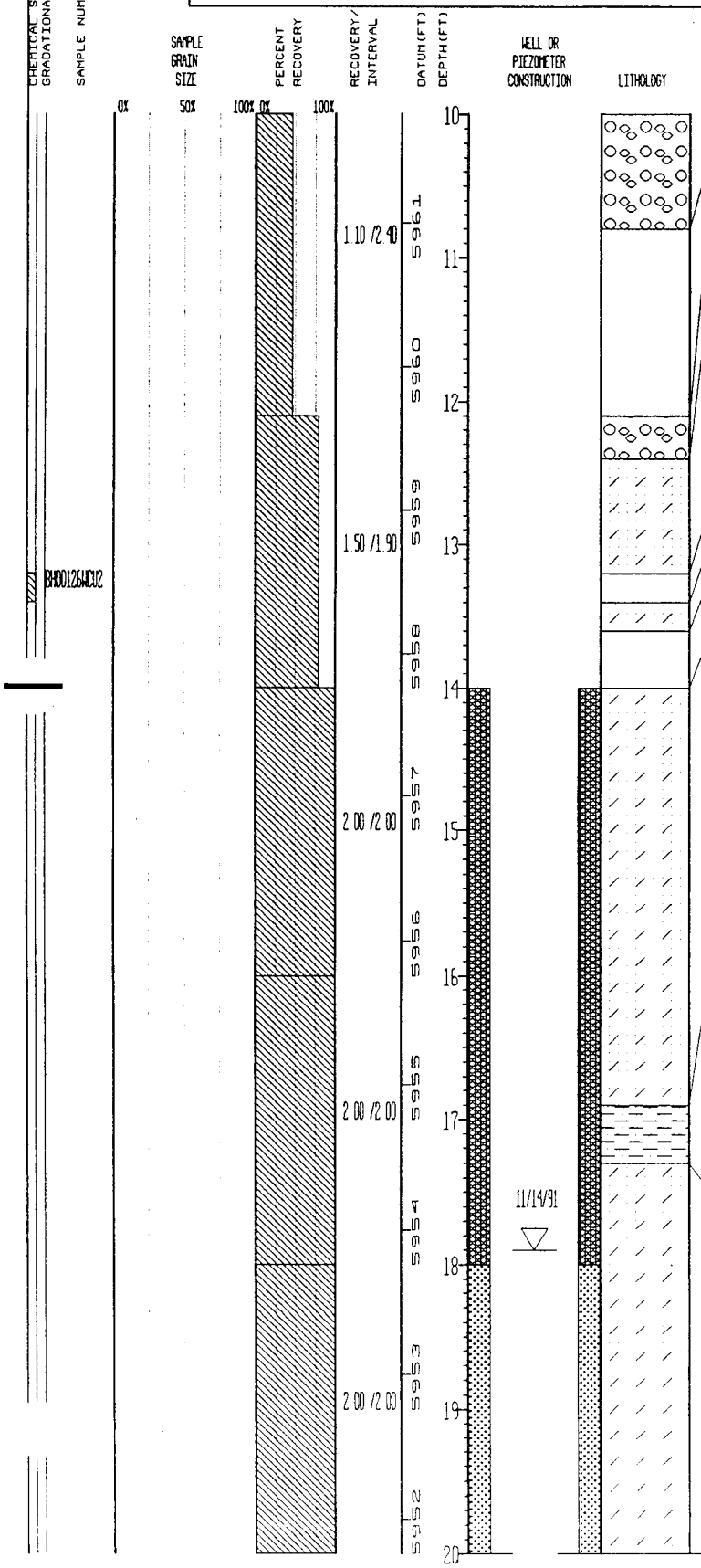
GW: Sandy Gravel - moderate brown (5YR4/4) to light brown (5YR3/6), maximum gravel size 2" diameter, average 1" diameter, coarse- to fine-grained sand, sub-angular, low plasticity, gravel primarily quartzite with some granite and trace arkosic arenite and diorite, dominant lithology sand quartz with some rock fragments and trace dark minerals, mica and pyrite, trace limonite and iron staining throughout, no apparent bedding, moist to wet, increase in sand and iron staining at 8.8-10.6'
63% gravel, 33% sand, 1% silt, 3% clay

VOA sample obtained from this interval

GW: Sandy Gravel - moderate brown (5YR4/4) to light brown (5YR3/6), as described above

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 35.9	GROUND ELEVATION (FT):	5971.76	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749437.81	AREA: MOUND	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	01891
EAST:	2086023.25	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/13/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 18.0 FT. - 14.0 FT. BACKFILL MATERIAL: BENTONITE 35.9 FT. - 32.0 FT.

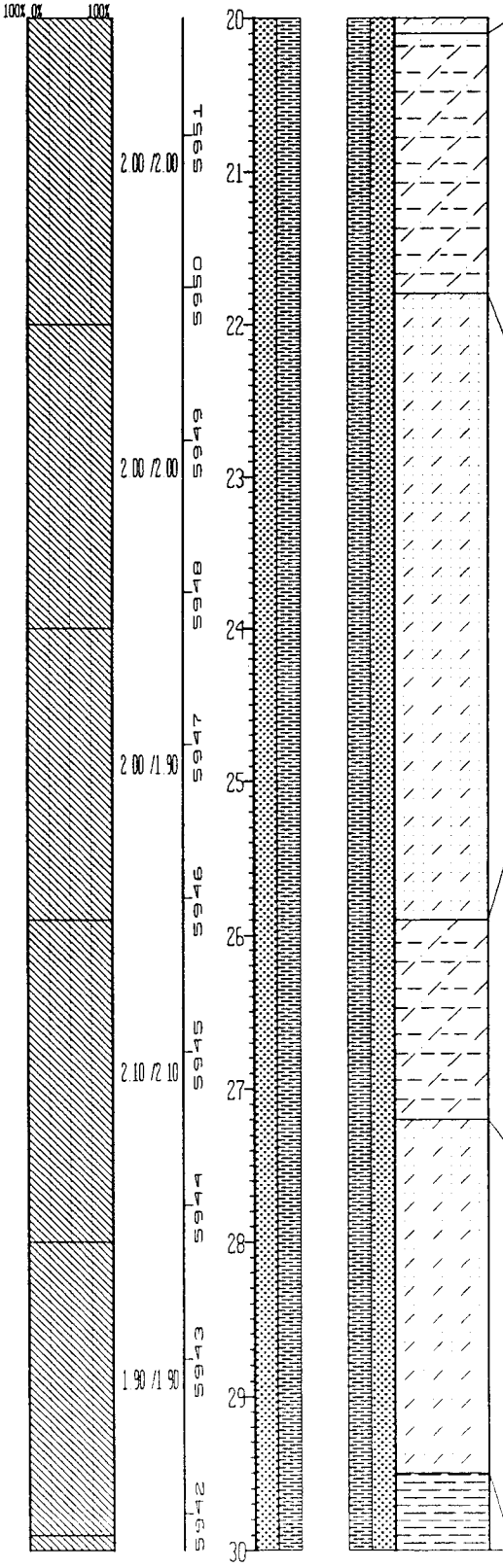


UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	No recovery for this interval.
GW	Sandy Gravel - moderate brown (5YR4/4) to light brown (5YR3/6), as described above. Top of bedrock at 12.4 ft.
SILTY SANDSTONE	Silty Sandstone - dark yellowish orange (10YR6/6), medium- to very fine-grained sand, moderately sorted, sub-angular to sub-rounded, approximately 18% porosity, moderately friable, argillaceous cement, dominant lithology sand clear quartz with some iron nodules and dark minerals and trace mica, abundant iron staining on grains, abundant limonite and trace carbonaceous material throughout, no apparent bedding or fractures, wet, weathered. 61% sand, 37% silt, 2% clay.
	VOA sample obtained from this interval.
SILTY SANDSTONE	Silty Sandstone - pale olive (10Y6/2), as described below.
	No recovery for this interval.
SILTY SANDSTONE	Silty Sandstone - pale olive (10Y6/2), medium- to very fine-grained sand, moderately sorted, sub-rounded to rounded, approximately 20% porosity, highly friable, argillaceous cement, dominant lithology sand clear quartz with some dark minerals and trace mica and iron nodules, trace iron staining on grains, some limonite throughout, trace carbonaceous material along bedding planes and throughout interval, thin clay laminations at 14.3', thin clay, silt and sand laminations with trace manganese at 15.6-15.8' with low angle bedding, trace 45 degree healed fracture with iron at 15.9-16.8', wet. 58% sand, 40% silt, 2% clay.
SANDY CLAYSTONE	Sandy Claystone with some silt - grayish olive (10Y4/2), fine- to very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, slightly friable, argillaceous cement, dominant lithology sand clear quartz with trace dark minerals, mica and iron nodules, some iron staining on grains, abundant limonite and banded limonite throughout, some manganese staining, thin laminations of clay, sand and silt, no apparent fractures, wet. 37% sand, 12% silt, 51% clay.
SILTY SANDSTONE	Silty Sandstone - dusky yellow (5Y6/4), medium- to very fine-grained sand, moderately sorted, sub-angular to sub-rounded, approximately 20% porosity, highly friable, argillaceous cement, dominant lithology sand clear quartz with some dark minerals and trace iron nodules, some limonite and trace clay clast throughout, trace low angle bedding 17.4-17.6', 90 degree healed fracture with manganese at 17.8-17.9', thin clay laminations at 17.6' and 17.9', iron nodule at 18.8', 90 degree healed fracture with manganese at 18.8-18.9', dewatering structure at 19.0-19.2', low angle bedding at 19.4', thin clay laminations with some manganese at 19.5-19.7', some bioturbation at 19.6', low angle bedding with thin laminations of clay, silt and sand at 19.7-20.1', wet. 53% sand, 10% silt, 3% clay.

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 35.9	GROUND ELEVATION (FT):	5971.76	PROJECT NUMBER:	0028I	LOG OF BORING NUMBER:
NORTH: 749437.81	AREA: MOUND	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	01891
EAST: 2086023.25	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/13/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 18.0 FT - 14.0 FT. BACKFILL MATERIAL: BENTONITE 35.9 FT - 32.0 FT.

CHEMICAL SAMPT / GRADATIONAL S / DEPTH / SAMPLE NUMBER / SAMPLE GRAIN SIZE (0% 50% 100%) / PERCENT RECOVERY (0% 100%) / RECOVERY/INTERVAL / DATUM(FT) / DEPTH(FT) / WELL OR PIEZOMETER CONSTRUCTION / LITHOLOGY / UNIFIED SOILS CLASSIFICATION OR ROCK TYPE / DESCRIPTION



SILTY CLAYSTONE: Silty Claystone with some sand - medium light gray (N6) to dark yellowish orange (10YR6/6), very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with trace dark minerals and iron nodules, some iron staining on grains, some limonite, manganese and trace iron nodules throughout, trace low angle bedding throughout, abundant limonite and manganese at 21.1-21.3', sand layers at 20.7-20.8' and 21.5-21.6', some vertical healed fractures with iron around 21.0', highly broken, wet, weathered.
18% sand, 33% silt, 49% clay

SILTY SANDSTONE: Silty Sandstone with some clay - dusky yellow (5Y6/4), medium- to very fine-grained sand, moderately sorted, sub-rounded to rounded, approximately 20% porosity, highly friable, argillaceous cement, dominant lithology sand clear quartz with some dark minerals and iron nodules, trace mica, some iron staining on grains, some limonite and trace carbonaceous material throughout, trace low angle bedding with thin clay laminations at 22.4-22.5', 22.8', 23.3', 23.9', 24.1-24.3' and 25.0' with banded manganese-possible micro channel, ironstone layer at 22.5-22.6', 90 degree healed fracture with iron at 22.7-22.9', horizontal bedding 22.6-22.9', plant fragments with dendrite texture 22.6-22.9', trace sand clast at 23.1', 90 degree fracture with silt and clay 22.9-23.7' and 24.0-24.4', dewatering structure at 23.5-23.7', 45 degree healed fracture with manganese and iron 23.7-23.8'
51% sand, 31% silt, 10% clay

SILTY CLAYSTONE: Silty Claystone with some interbedded sand layers - grayish olive (10Y4/2) to dark yellowish orange (10YR6/6), very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with trace dark minerals, mica and iron nodules, some limonite throughout, sand layer 26.4-26.5', plant fragments with dendrite texture at 26.6', iron nodules at 26.7-26.8', no apparent bedding, 90 degree healed fracture with iron at 27.0-27.2', wet
15% sand, 34% silt, 51% clay

SILTY SANDSTONE: Silty Sandstone - dusky yellow (5Y6/4), medium- to very fine-grained sand, moderately sorted, sub-rounded to rounded, approximately 20% porosity, argillaceous cement, highly friable, dominant lithology sand clear quartz with some dark minerals, trace mica and iron nodules, some iron staining on grains, some limonite and trace carbonaceous material throughout, abundant carbonaceous material at 27.2-27.3', trace plant fragments with dendrite texture at 28.3', clay layer at 28.9-29.0', abundant 90 degree healed fracture with manganese 27.3-27.4', no apparent bedding, wet
60% sand, 36% silt, 4% clay

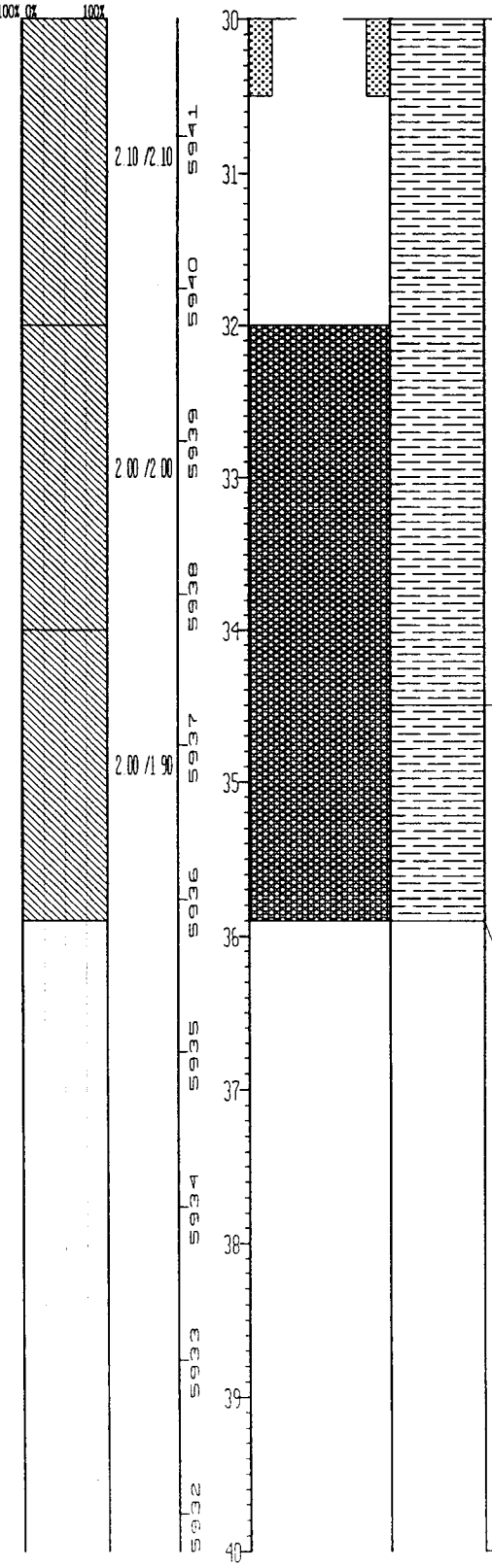
STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 35.9	GROUND ELEVATION (FT):	5971.76	PROJECT NUMBER:	OU2RI
NORTH:	749437.81	AREA: MOUND	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST:	2086023.25	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/13/91

LOG OF BORING NUMBER: 01891

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 18.0 FT. - 14.0 FT. BACKFILL MATERIAL: BENTONITE 35.9 FT - 32.0 FT.

CHEMICAL SAMP/ GRADATIONAL S. | SAMPLE NUMBER | DEPTH

SAMPLE GRAIN SIZE (0% 50% 100%) | PERCENT RECOVERY (0% 100%) | RECOVERY/ INTERVAL | DATUM (FT) | DEPTH (FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION



CLAYSTONE: Claystone with some silt and interbedded sand - dusky yellow (5Y6/4) to grayish olive (10Y4/2), very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, argillaceous cement, non- to slightly friable, dominant lithology sand clear quartz with some dark minerals and trace mica and iron nodules, some limonite throughout, trace caliche clast at 31.4-32.0' and 34.1-34.5', some iron nodules at 32.6-34.5', trace low angle bedding throughout, 90 degree healed fractures with iron at 31.4-31.5' and 34.2-34.5', silt laminations at 32.6-32.7', sand layers at 30.5' and 30.8-31.2', moist, slightly weathered
4% sand, 14% silt, 82% clay

CLAYSTONE: Claystone with some silt - olive gray (5Y3/2), very fine-grained sand, well sorted, sub-angular, approximately 5% porosity, argillaceous cement, non-friable, dominant lithology sand clear quartz with trace dark minerals and mica, some limonite and trace caliche clast throughout, wood fragments at 35.0-35.7', trace low angle bedding throughout, 90° degree healed fractures with iron at 34.5-34.9' and 35.0-35.9', sand layer at 34.8-34.9', moist, unweathered
4% sand, 14% silt, 82% clay

Total depth at 35.9 ft

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 44.8	GROUND ELEVATION (FT):	5962.19	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749475.67	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	01991
EAST:	2086733.53	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/26/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 26.8 FT. - 23.0 FT. BACKFILL MATERIAL: BENTONITE 44.8 FT. - 40.8 FT.

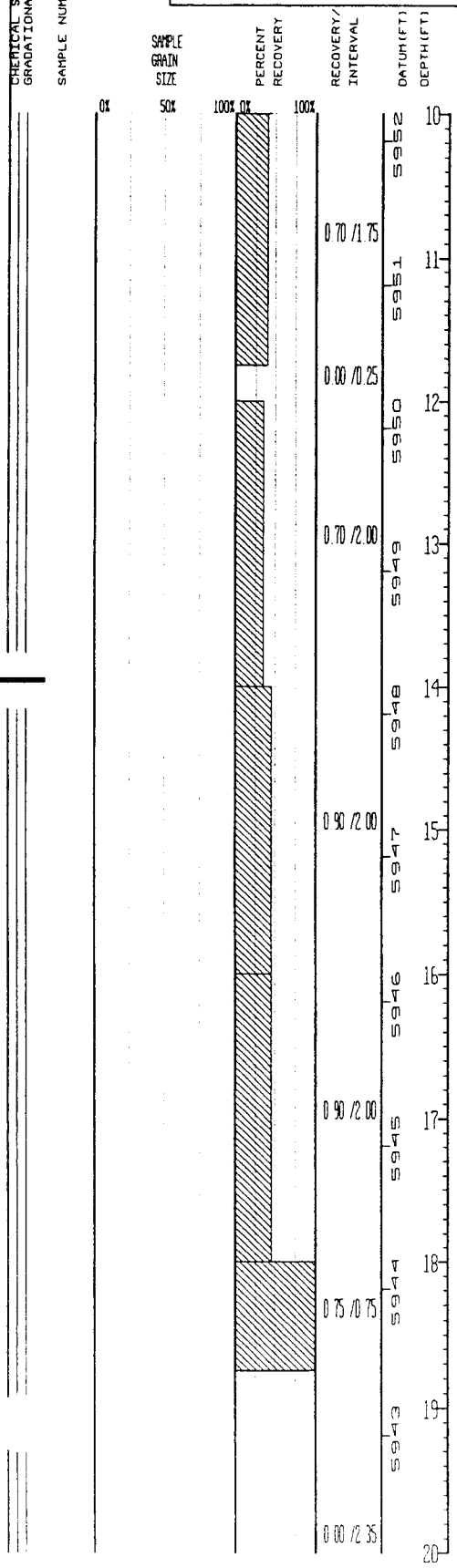
CHEMICAL SAMPLE / GRADATIONAL SAMPLE / DEPTH / SAMPLE NUMBER / SAMPLE GRAIN SIZE / PERCENT RECOVERY / RECOVERY/INTERVAL / DATUM(FT) / DEPTH(FT) / WELL OR PIEZOMETER CONSTRUCTION / LITHOLOGY / UNIFIED SOILS CLASSIFICATION OR ROCK TYPE / DESCRIPTION

0% 50% 100% 0% 100%

RECOVERY/INTERVAL	DATUM(FT)	DEPTH(FT)	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	5962	0		Top soil, start of boring at 0.90 ft.
0.60 /2.00	5961	1	ML	Clayey Silt with some gravel and sand - dusky brown (5YR2/2), maximum gravel diameter .15', average .09', fine- to coarse-grained sand, well graded, angular to sub-rounded, moderate plasticity, gravel is primarily quartzite, sand contains abundant quartz, carbonaceous/organic material, some rock fragments, feldspar, trace dark minerals, mica, no apparent bedding, moist. 20% gravel, 15% sand, 38% silt, 27% clay
				No recovery for this interval.
	5960	2	ML	Clayey Silt with some gravel and sand - dusky brown (5YR2/2), as described above.
1.90 /2.00	5959	3	CL	Sandy Clay with some gravel and silt - very pale orange (10YR8/2) to moderate reddish orange (10R6/6) at 2.5'-2.9', maximum gravel diameter .11', average .04', fine- to coarse-grained sand, well graded, gravel is rounded to sub-rounded, sand is angular to sub-rounded, moderate plasticity, gravel is primarily caliche coated quartzite, sand contains abundant quartz, trace caliche, rock fragments, feldspar, dark minerals, mica, thinly bedded caliche at 2.7-2.9', moist. 16% gravel, 17% sand, 13% silt, 54% clay
	5958	4	GC	Clayey Gravel with some sand and silt - moderate brown (5YR4/4) to moderate yellowish brown (10YR5/4), maximum gravel diamter .2', average .09', sand is fine- to coarse-grained, angular to sub-rounded, low plasticity, gravel is primarily quartzite with trace silty arkosic arenite at 5.3', sand contains abundant quartz, some rock fragments, feldspar, trace calcrete/caliche, mica, iron stain, no apparent bedding, moist. 51% gravel, 14% sand, 9% silt, 26% clay
2.00 /2.00	5957	5		
	5956	6		
			GM	Silty Gravel with some sand and clay - grayish orange (10YR7/4) to moderate yellowish brown (10YR5/4), as described above.
0.80 /2.00	5955	7		No recovery for this interval.
	5954	8	GM	Silty Gravel with some sand and clay - grayish orange (10YR7/4) to moderate yellowish brown (10YR5/4), maximum gravel diameter > .25', average .15', fine- to coarse-grained sand, well graded, angular to rounded, low plasticity, gravel is primarily iron stained quartzite with trace arkosic arenite at 8.8', 14.2-16.3' and granite at 10.1', sand contains abundant quartz, some rock fragments, iron stains, feldspar, dark minerals, trace mica, yellowish gray (5Y7/2) sandy clay clasts/nodules at 9.0-9.9', 14.1', 14.8', 16.8' (appears to be re-worked bedrock), moist to 16.9', saturated at 18.0'. 66% gravel, 10% sand, 14% silt, 10% clay
0.90 /2.00	5953	9		
		10		No recovery for this interval.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 44.8	GROUND ELEVATION (FT):	5962.19	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749475.67	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	01991
EAST:	2086733.53	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/26/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 26.8 FT. - 23.0 FT. BACKFILL MATERIAL: BENTONITE 44.8 FT. - 40.8 FT.



WELL OR PIEZOMETER CONSTRUCTION: 03/26/92

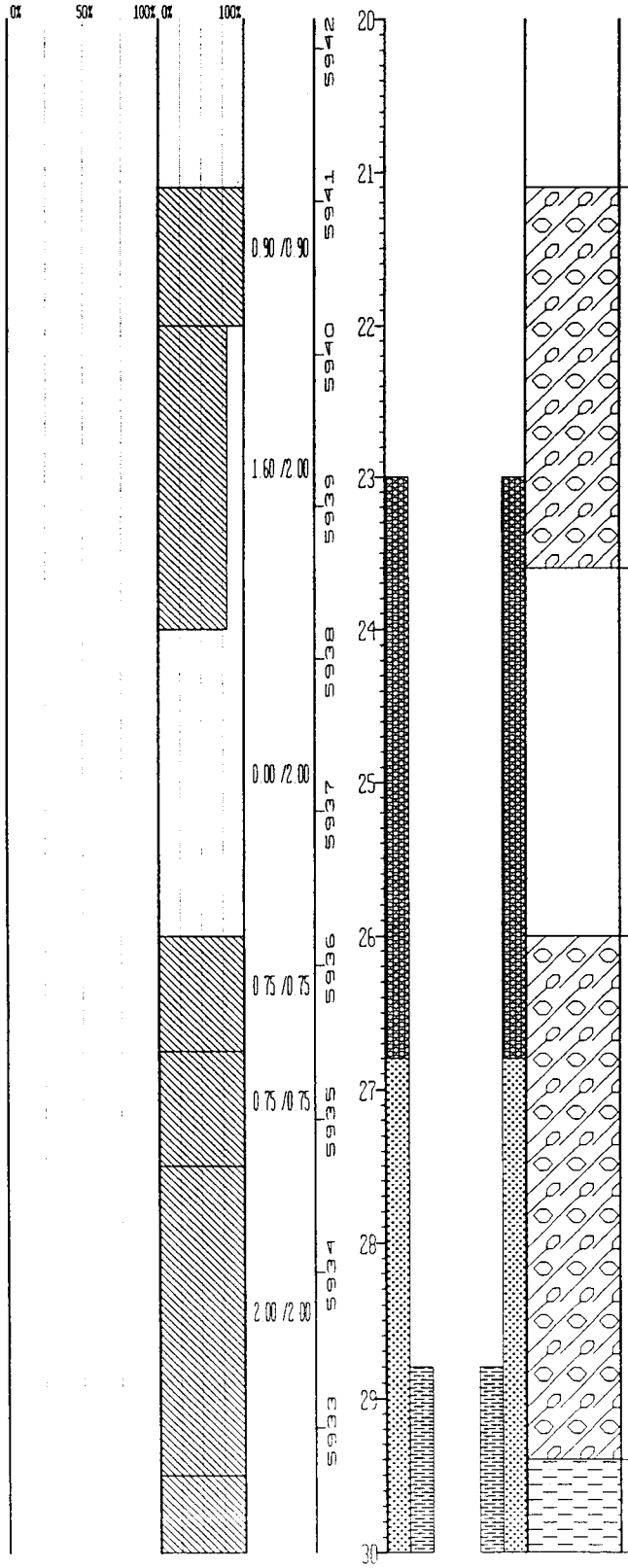
LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	GM	Silty Gravel with some sand and clay - grayish orange (10YR7/4) to moderate yellowish brown (10YR5/4), as described above.
		No recovery for this interval
	GM	Silty Gravel with some sand and clay - grayish orange (10YR7/4) to moderate yellowish brown (10YR5/4), as described above.
		No recovery for this interval
	GM	Silty Gravel with some sand and clay - grayish orange (10YR7/4) to moderate yellowish brown (10YR5/4), as described above
		No recovery for this interval
	GM	Silty Gravel with some sand and clay - grayish orange (10YR7/4) to moderate yellowish brown (10YR5/4), as described above.
		No recovery for this interval
	GC	Clayey Gravel with abundant sand and some silt - moderate yellowish brown (10YR5/4) to moderate brown (5YR4/4), maximum gravel diameter > 25', average .03', fine- to coarse-grained sand, well graded, gravel is rounded or fractured, sand is angular to rounded, moderate plasticity, sand contains abundant quartz, some rock fragments, dark minerals, feldspar, iron stain, trace mica. 33% gravel, 26% sand, 13% silt, 28% clay.
		No recovery for this interval

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 44.8	GROUND ELEVATION (FT):	5962.19	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749475.67	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	01991
EAST:	2086733.53	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/26/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 26.8 FT. - 23.0 FT. BACKFILL MATERIAL: BENTONITE 44.8 FT. - 40.8 FT

CHEMICAL SAMPLE / GRADATIONAL SAMPLE / SAMPLE NUMBER / DEPTH

SAMPLE GRAIN SIZE (0% – 50% – 100%) | PERCENT RECOVERY (0% – 100%) | RECOVERY/INTERVAL | DATUM (FT) | DEPTH (FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION

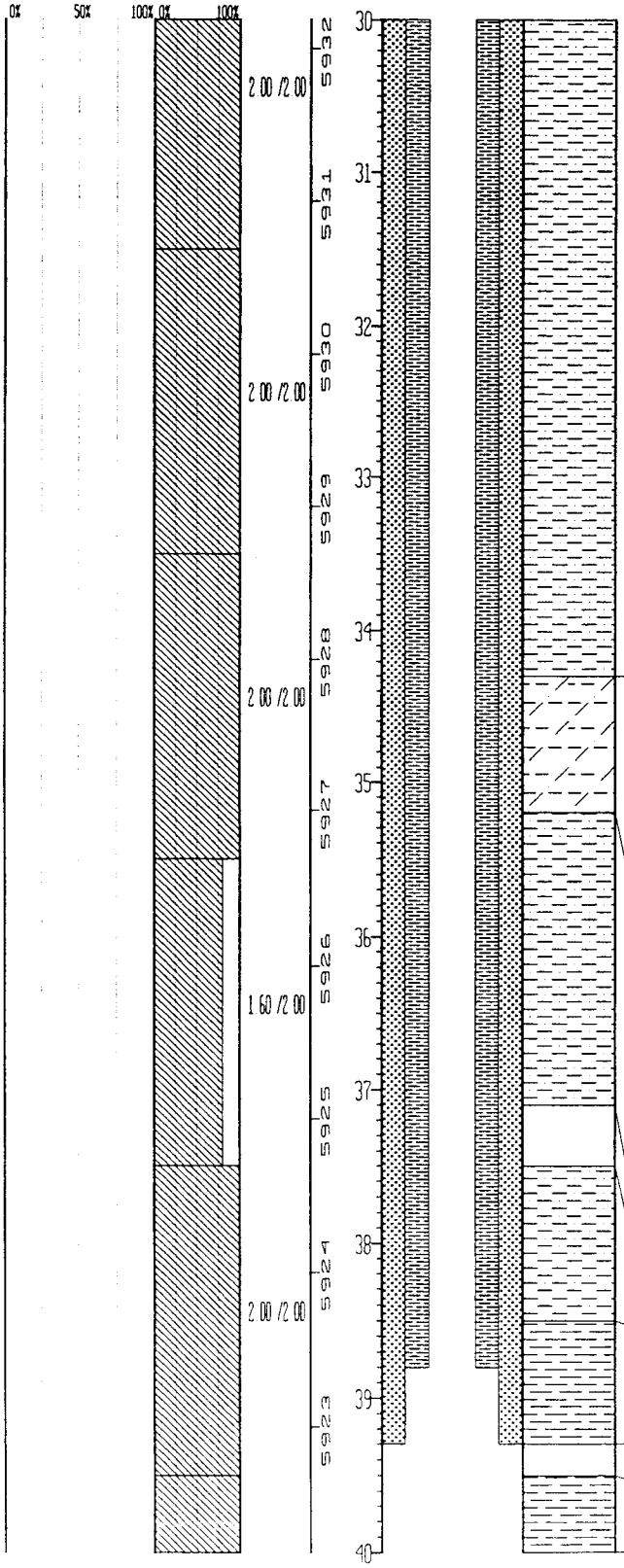


Unified Soils Classification or Rock Type	Description
GC	Clayey Gravel with abundant sand and some silt - moderate yellowish brown (10YR5/4) to moderate brown (5YR4/4), as described above.
	No recovery for this interval
GC	Clayey Gravel with abundant sand and some silt - moderate yellowish brown (10YR5/4) to moderate brown (5YR4/4), yellowish gray (5YR4/4) .03'x.03' rounded sandy clay clasts at 27.0-27.2', contact with underlying bedrock is sharp with gravel loaded and imbricated into bedrock, saturated Top of bedrock at 29.4 ft
SANDY CLAYSTONE	Sandy Claystone with some silt - yellowish gray (5Y7/2) clay beds, otherwise light olive gray (5Y5/2), dark yellowish orange (10YR6/6)

STATE PLANE COORDINATE	TOTAL DEPTH (FT): 44.8	GROUND ELEVATION (FT): 5962.19	PROJECT NUMBER: 0U2RI	LOG OF BORING NUMBER
NORTH: 749475.67	AREA: NE TRENCHES	CASING DIAMETER (IN): 2.0	GEOLOGIST: J.P. O'BRIEN	01991
EAST: 2086733.53	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 03/26/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 26.8 FT. - 23.0 FT BACKFILL MATERIAL: BENTONITE 44.8 FT. - 40.8 FT

TH DEPTH | CHEMICAL SAMPL GRADATIONAL S | SAMPLE NUMBER | SAMPLE GRAIN SIZE | PERCENT RECOVERY | RECOVERY/INTERVAL | DATUM (FT) | DEPTH (FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION



where iron stained (29.9', 30.1-30.8', 31.2', 31.4', 32.1', 32.3', 32.6'), very fine- to fine-grained, moderately to well sorted, sub-rounded to rounded, approximately 9% porosity, argillaceous cement, moderately friable, abundant frosted quartz, some rock fragments/dark minerals, trace mica, thinly laminated to thinly bedded, clay rip-up clasts at 30.8-31.2', cross laminations dipping at 30 degrees at 33.3-33.4', moist
18% sand, 13% silt, 69% clay

SILTY CLAYSTONE Silty Claystone with some sand - light olive gray (5Y6/1) to dark yellowish orange (10YR6/6) where iron stained (34.3-34.5', 35.1-35.2'), very fine- to fine-grained, well sorted, sub-rounded to well rounded, approximately 7% porosity, argillaceous cement, slightly friable, abundant frosted quartz, some dark minerals, thinly bedded silty clay with thin laminea of clay at regular .04' intervals, trace iron stain on top of clay laminea, moist
14% sand, 17% silt, 69% clay

SANDY CLAYSTONE Sandy Claystone with some silt - yellowish gray (5Y7/2) to dark yellowish orange (10YR6/6) where iron stained (35.2-35.6', 36.2', 37.0'), very fine- to fine-grained, well sorted, rounded to well rounded, approximately 8% porosity, argillaceous cement, slightly to moderately friable, abundant frosted quartz, some dark minerals, trace rock fragments, cross laminea at 35.3', some dark gray clay rip-up clasts at 35.6-35.8', thinly laminated to thinly bedded at 35.7-37.1', increased clay and carbonaceous material at 37.6-37.8', 25 degree fracture at 38.2', moist
19% sand, 13% silt, 68% clay

No recovery for this interval

SANDY CLAYSTONE Sandy Claystone with some silt - yellowish gray (5Y7/2) to dark yellowish orange (10YR6/6) where iron stained, as described above

CLAYSTONE Claystone with some silt and sand - medium dark gray (N4) to dark yellowish orange (10YR6/6) where iron stained, as described below

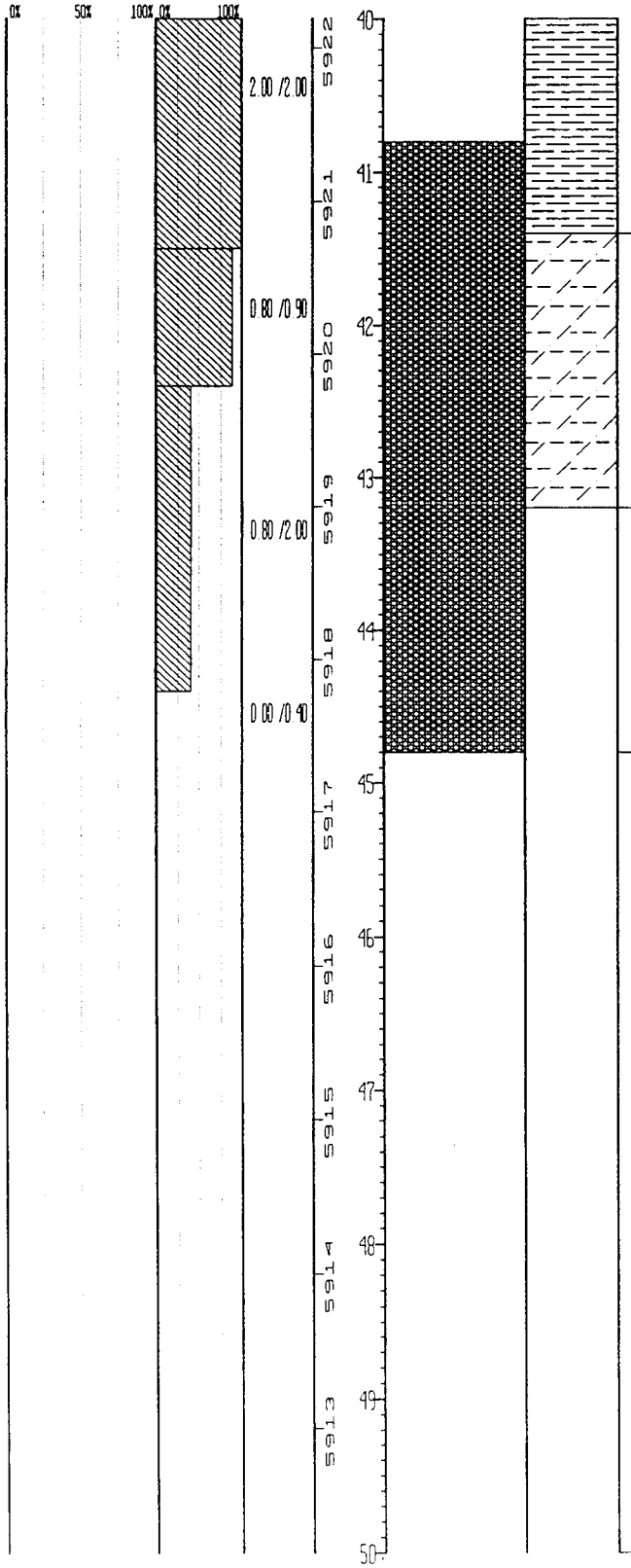
VOA sample obtained from this interval

CLAYSTONE Claystone with some silt and sand - medium dark gray (N4) to dark yellowish orange (10YR6/6) where iron stained sandy laminea/beds,

pH0638WD02

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 44.8	GROUND ELEVATION (FT):	5962.19	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749475.67	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	01991
EAST:	2086733.53	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/26/92	

REMARKS: HOLLOW-STEM AUGER BENTONITE SEAL 26.8 FT. - 23.0 FT. BACKFILL MATERIAL: BENTONITE 44.8 FT. - 40.8 FT.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION

very fine-grained, very well sorted, rounded, approximately 3% porosity, argillaceous cement, slightly to non-friable, abundant frosted quartz, trace dark minerals, .01'x.02' caliche nodule at 39.0', increased clay content at 39.5-40.0', 41.0-41.2', moist. 7% sand, 10% silt, 83% clay.

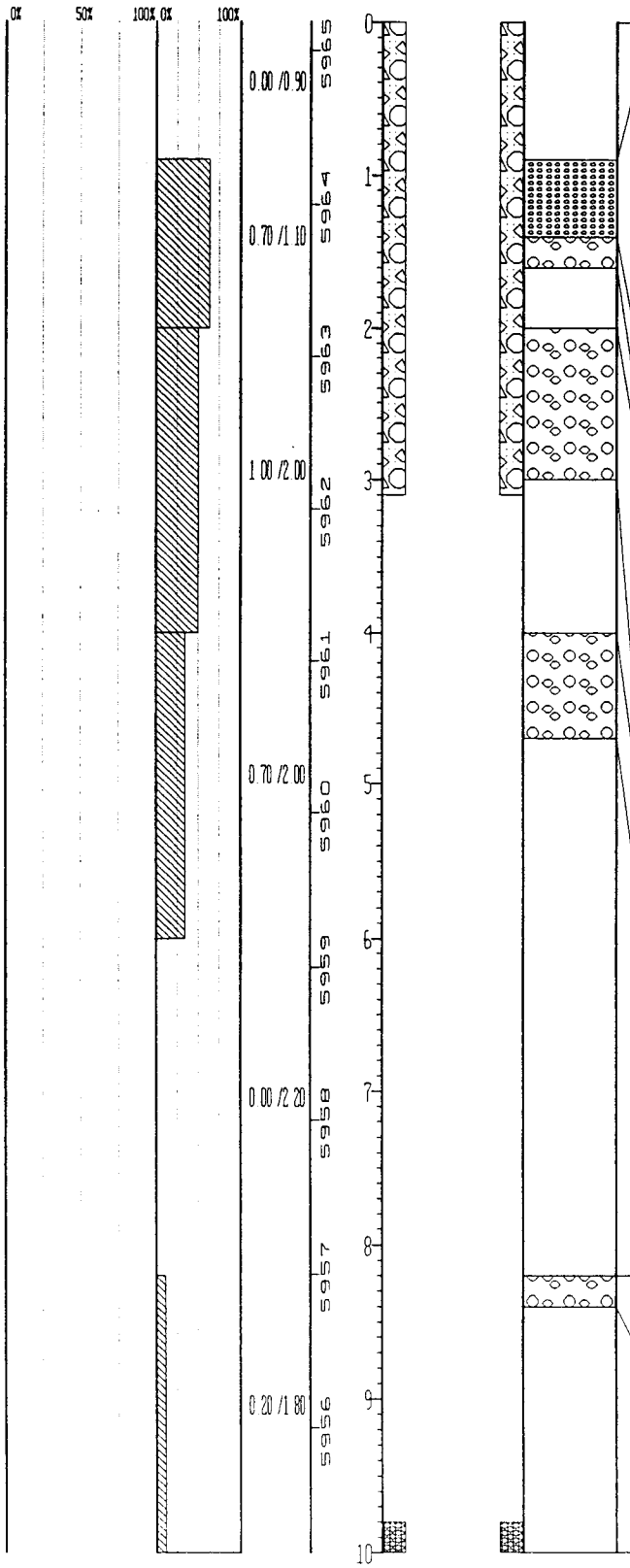
SILTY CLAYSTONE: Silty Claystone with some sand - grayish black (N2) to medium light gray (N6) where more sandy (42.9-43.2'), very fine-grained, very well sorted, sub-rounded to well rounded, approximately 4% porosity, argillaceous cement, slightly to non-friable, abundant dark minerals, quartz, trace feldspar, rock fragments, crudely laminated or bedded, some dark yellowish orange (10YR6/6) iron stained sand lenses and stringers, load cast at 43.2', moist
Reamed 44.4-44.8'.
15% sand, 17% silt, 67% clay.

No recovery for this interval

Total depth at 44.8 ft

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 36.2	GROUND ELEVATION (FT):	5965.19	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749617.29	AREA: MOUND	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	02091
EAST:	2086427.87	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/07/91	

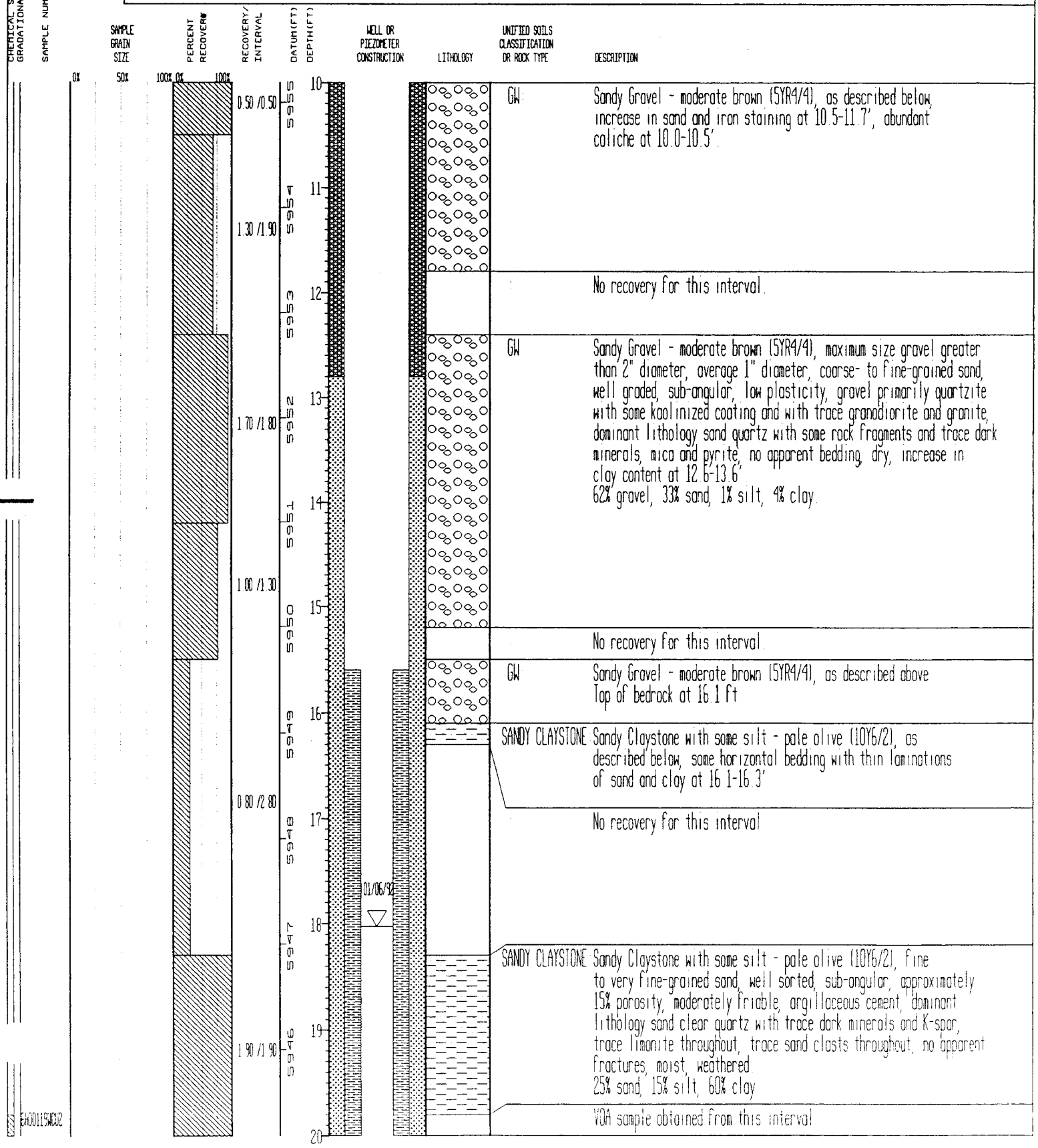
REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 12.8 FT. - 9.8 FT. BACKFILL MATERIAL: BENTONITE 36.2 FT. - 32.6 FT.



LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		Top soil, start of boring at 0.90 ft.
	SW	Organic Gravelly Sand - grayish black (N2), maximum size gravel 3/4" diameter, average 1/2" diameter, coarse- to very fine-grained sand, well graded, angular sand, sub-angular to sub-rounded gravel, low plasticity, dominant lithology sand quartz with trace dark minerals, mica, pyrite and rock fragments, trace iron staining, gravel primarily quartzite, abundant caliche throughout, no apparent bedding, moist, abundant roots present. 45% gravel, 48% sand, 4% silt, 3% clay.
	GW	Sandy Gravel - pinkish gray (5YR8/1), as described below.
		No recovery for this interval
	GW	Sandy Gravel - pinkish gray (5YR8/1), maximum gravel size 2" diameter, average 1" diameter, coarse- to fine-grained sand, well graded, low plasticity, sub-angular, gravel primarily quartzite with some granite and trace weathered sandstone, dominant lithology sand quartz with some rock fragments and trace dark minerals and mica, trace iron staining on grains, abundant caliche throughout and coating on gravels, no apparent bedding, dry. 66% gravel, 28% sand, 2% silt, 4% clay.
		No recovery for this interval
	GW	Sandy Gravel - moderate brown (5YR4/4), as described below, abundant caliche at 4.0-4.7', pea size gravel with increase in sand at 4.0-4.7'
		No recovery for this interval
	GW	Sandy Gravel - moderate brown (5YR4/4), as described below, abundant caliche at 8.2-8.4'
		No recovery for this interval

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 36.2	GROUND ELEVATION (FT):	5965.19	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH: 749617.29	AREA: MOUND	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	02091
EAST: 2086427.87	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/07/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 12.8 FT. - 9.8 FT. BACKFILL MATERIAL: BENTONITE 36.2 FT - 32.6 FT.



STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 36.2	GROUND ELEVATION (FT):	5965.19	PROJECT NUMBER:	OU2RI
NORTH:	749617.29	AREA: MOUND	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST:	2086427.87	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/07/91

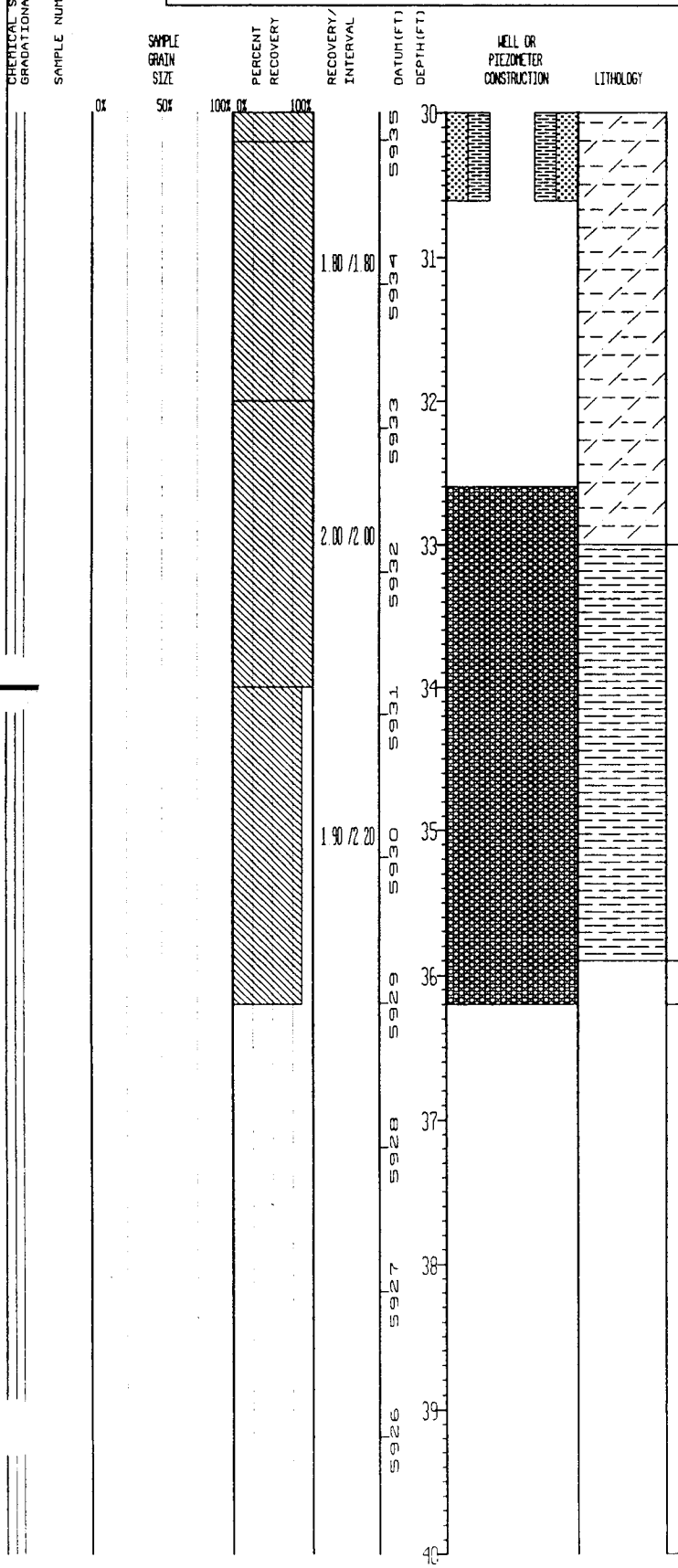
REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 12.8 FT - 9.8 FT. BACKFILL MATERIAL: BENTONITE 36.2 FT - 32.6 FT

LOG OF BORING NUMBER: 02091

DEPTH	CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
20			0% 50% 100%	0% 100%		5945			SANDY CLAYSTONE	Sandy Claystone with some silt - pale olive (10Y6/2), as described above, some horizontal bedding with thin laminations of sand and clay at 20.2-20.9', brecciated appearance with some manganese staining and trace carbonaceous material at 20.2-20.9', increase to abundant limonite and trace caliche clasts at 20.9-21.1'
21					2.20 /2.20	5944			CLAYSTONE	Claystone with some silt - pale olive (10Y6/2) to grayish olive (10Y4/2), very fine-grained sand, well sorted, sub-angular, approximately 5% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with trace dark minerals and mica, trace iron staining on grains, some limonite and iron nodules throughout, some clay clasts with manganese staining around them, trace horizontal bedding, no apparent fractures, moist to very moist, weathered. 5% sand, 10% silt, 85% clay
22						5943	11/08/91			
23					2.10 /2.00	5942			CLAYEY SILTSTONE	Clayey Siltstone with some sand - pale olive (10Y6/2) to dark yellowish orange (10YR6/6), very fine-grained sand, well sorted, sub-angular, approximately 15% porosity, argillaceous cement, moderately friable, dominant lithology sand clear quartz with trace dark minerals and mica, some iron staining on grains, some limonite throughout, trace carbonaceous material, clay clasts and iron nodules throughout, some convoluted bedding with thin laminations of sand, silt and clay at 23.9-24.1', horizontal bedding with thin laminations of sand and silt at 24.8-25.1', no apparent fractures, moist to very moist, weathered. 8% sand, 69% silt, 23% clay
24						5941				
25					2.00 /2.00	5940				
26						5939			SILTY SANDSTONE	Silty Sandstone - pale olive (10Y6/2), very fine-grained sand, well sorted, sub-angular, approximately 20% porosity, argillaceous cement, highly friable, dominant lithology sand clear quartz with some dark minerals and iron nodules, trace mica, some iron staining on grains, some limonite and trace carbonaceous material throughout, some bedding with 1/2" laminations of sand, silt and clay, no apparent fractures, moist to very moist, weathered. 74% sand, 23% silt, 3% clay
27					2.00 /1.80	5938				
28						5937			SILTY CLAYSTONE	Silty Claystone - grayish olive (10Y4/2), very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with some dark minerals and trace iron nodules and mica, trace iron staining on grains, abundant limonite and trace carbonaceous material throughout, clay clasts up to 1/2" diameter throughout, horizontal bedding with thin laminations of clay and silt at 27.1-27.8' and 29.2-33.0', no apparent fractures, moist, slightly weathered, sand lenses at 32.9-33.0'. 4% sand, 20% silt, 76% clay
29					2.00 /2.00	5936				
30										

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 36.2	GROUND ELEVATION (FT):	5965.19	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749617.29	AREA: MOUND	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	02091
EAST:	2086427.87	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/07/91	

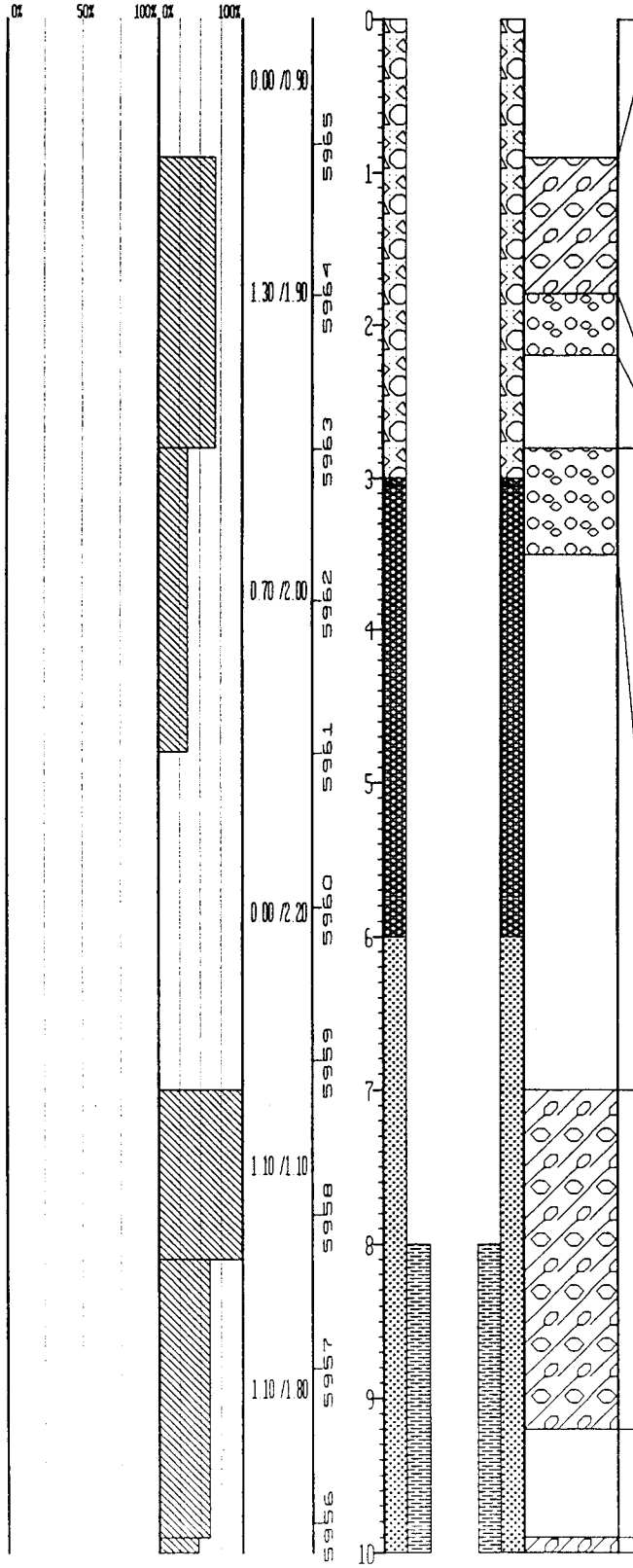
REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 12.8 FT - 9.8 FT. BACKFILL MATERIAL: BENTONITE 36.2 FT. - 32.6 FT.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
CLAYSTONE:	Claystone with some silt - olive gray (5Y3/2) to grayish olive (10Y4/2), very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, argillaceous cement, non-friable, dominant lithology sand clear quartz with trace dark minerals, iron nodules and mica, trace iron staining on grains, trace carbonaceous material throughout, trace clay clasts, trace limonite, horizontal bedding with thin laminations of clay and silt throughout, no apparent fractures, moist, slightly weathered, abundant carbonaceous material and immature lignitic coal at 34.4-34.5', increase to some limonite at 35.5-35.9'. 3% sand, 13% silt, 84% clay.
	No recovery for this interval
	Total depth at 36.2 ft.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 20.8	GROUND ELEVATION (FT):	5965.81	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749707.72	AREA: MOUND	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	02191
EAST:	2086166.42	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/04/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 6.0 FT. - 3.0 FT. BACKFILL MATERIAL: BENTONITE 20.8 FT. - 15.0 FT.

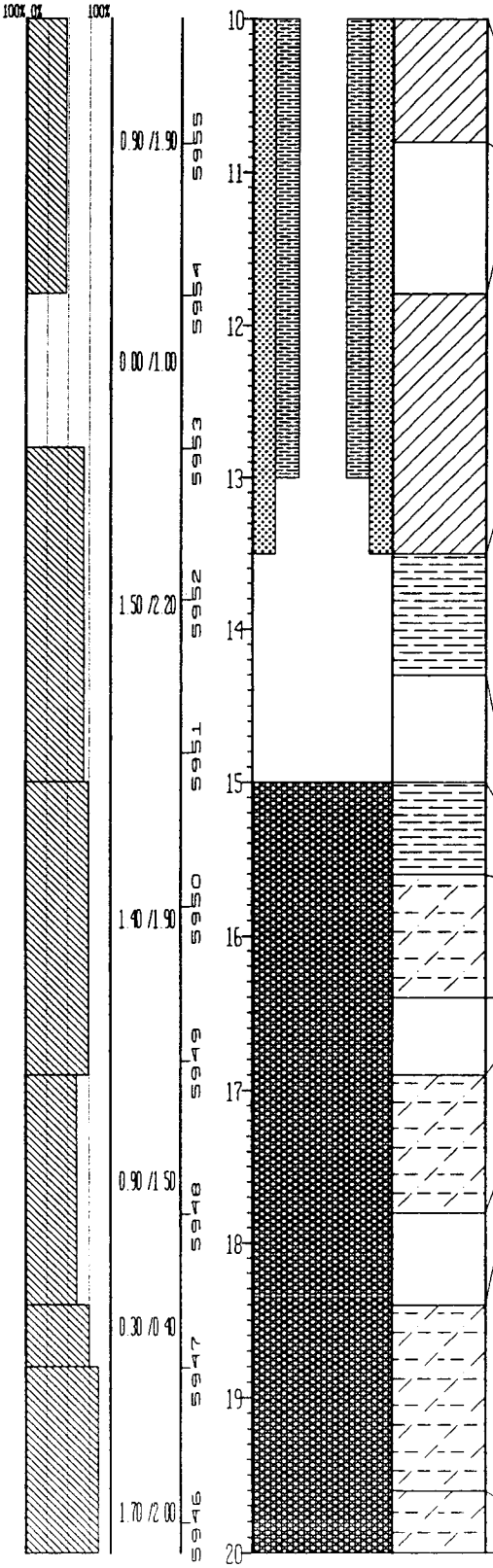


UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	Top soil, start of boring at 0.90 ft.
GC	Organic Sandy Gravel with some clay - dark gray (N3), maximum size gravel 1" diameter, average size 1/2" diameter, coarse- to fine-grained sand, well graded, sub-rounded to sub-angular gravel, sub-angular sand, medium plasticity, gravel primarily quartzite with some granite, dominant lithology sand quartz with some rock fragments and dark minerals, trace mica, trace limonite throughout, abundant caliche throughout, no apparent bedding, saturated, abundant roots present. 58% gravel, 21% sand, 9% silt, 12% clay
GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described below
	No recovery for this interval.
GW	Sandy Gravel - moderate yellowish brown (10YR5/4), maximum size gravel 1" diameter, average 1/2" diameter, coarse- to fine-grained sand, well graded, sub-angular, low plasticity, gravel primarily quartzite with some granite and quartz with trace arkosic arenite, dominant lithology sand quartz with some rock fragments and dark minerals, trace mica and K-spar, trace carbonaceous material and limonite throughout, abundant caliche throughout, no apparent bedding, dry. 64% gravel, 31% sand, 1% silt, 4% clay
	No recovery for this interval.
GC	Sandy Gravel with some clay - moderate yellowish brown (10YR5/4), maximum size gravel 2" diameter, average 1" diameter, coarse- to fine-grained sand, well graded, low to medium plasticity, gravel primarily quartzite with some granite and quartz, trace weathered schist, dominant lithology sand quartz with some rock fragments and trace dark minerals and mica, trace iron staining on grains, trace caliche throughout, abundant limonite at 8.8', no apparent bedding, dry, highly weathered. 61% gravel, 23% sand, 3% silt, 13% clay
	No recovery for this interval

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 20.8	GROUND ELEVATION (FT): 5965.81	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:
NORTH: 749707.72	AREA: MOUND	CASING DIAMETER (IN): 2.0	GEOLOGIST: L.A. GUST	02191
EAST: 2086166.42	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 11/04/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 6.0 FT. - 3.0 FT. BACKFILL MATERIAL: BENTONITE 20.8 FT. - 15.0 FT.

TH DEPTH | CHEMICAL SAMP GRADATIONAL S | SAMPLE NUMBER | SAMPLE GRAIN SIZE (0% 50%) | PERCENT RECOVERY (100% 0% 100%) | RECOVERY/INTERVAL | DATUM (FT) | DEPTH (FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
GC	Sandy Gravel with some clay - moderate yellowish brown (10YR5/4), as described above.
CL	Sandy Clay with some silt - dusky yellow (5Y6/4), as described below.
	No recovery for this interval.
CL	Sandy Clay with some silt - dusky yellow (5Y6/4), very fine-grained sand, maximum size gravel 1/4", poorly graded, sub-angular, medium plasticity, dominant lithology sand clear quartz with trace dark minerals and mica, some iron staining on grains, abundant limonite throughout, trace carbonaceous material and iron nodules throughout, gravel primarily quartzite, no apparent bedding, moist, bedrock like appearance. 1% gravel, 17% sand, 7% silt, 75% clay. Top of bedrock at 13.5 ft.
CLAYSTONE	Claystone with some sand - dusky yellow (5Y6/4) to pale olive (10Y6/2), very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, non- to slightly friable, argillaceous cement, dominant lithology sand clear quartz with trace dark minerals and mica, trace iron staining on grains, some limonite throughout, trace carbonaceous material and iron nodules throughout, trace clay and sand clasts throughout, no apparent bedding or fractures due to recovery, moist, weathered. 15% sand, 4% silt, 81% clay.
	No recovery for this interval.
CLAYSTONE	Claystone with some sand - dusky yellow (5Y6/4) to pale olive (10Y6/2), as described above.
SILTY CLAYSTONE	Silty Claystone with some sand - pale olive (10Y6/2) to dusky yellow (5Y6/4), as described below.
	No recovery for this interval.
SILTY CLAYSTONE	Silty Claystone with some sand - pale olive (10Y6/2) to dusky yellow (5Y6/4) as described below, trace manganese staining at 17.5'.
	No recovery for this interval.
SILTY CLAYSTONE	Silty Claystone with some sand - pale olive (10Y6/2) to dusky yellow (5Y6/4), very fine-grained sand, well sorted, sub-angular, approximately 15% porosity, slightly friable, argillaceous cement, dominant lithology sand clear quartz with some dark minerals and trace mica, some iron staining on grains, trace iron nodules throughout, some limonite throughout, no apparent bedding or fractures, moist, weathered. Note: quartzite gravel pushed at approximately 10.0', 1/2" iron nodule at 19.5', dewatering structure at 19.4-19.6'. 24% sand, 30% silt, 46% clay.
SILTY CLAYSTONE	Silty Claystone with some sand - pale olive (10Y6/2) to dark

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 20.8	GROUND ELEVATION (FT):	5965.81	PROJECT NUMBER:	002/RI
NORTH:	749707.72	AREA: MOUND	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST:	2086166.42	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/04/91

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 6.0 FT. - 3.0 FT. BACKFILL MATERIAL: BENTONITE 20.8 FT. - 15.0 FT.

LOG OF BORING NUMBER: 02191

TH DEPTH	CHEMICAL SAMP GRADATIONAL S	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		BH001150012	0% 50% 100%	0% 100%		5945	20				yellowish orange (10YR6/6), as described below, 0-30 degree healed fractures with iron at 19.9-20.1', 45 degree healed fracture with manganese at 19.9-20.1' and possible fault with 0.10' apparent normal movement.
							21				VOA sample obtained from this interval.
						5944	22			SILTY CLAYSTONE	Silty Claystone with some sand - pale olive (10Y6/2) to dark yellowish orange (10YR6/6), very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, argillaceous cement, non- to slightly friable, dominant lithology sand clear quartz with some dark minerals and trace mica and iron nodules, some iron staining on grains, some limonite throughout, some manganese staining throughout, no preferred bedding orientation, moist, weathered 10% sand, 17% silt, 73% clay
						5943	23				Total depth at 20.8 ft.
						5942	24				
						5941	25				
						5940	26				
						5939	27				
						5938	28				
						5937	29				
						5936	30				

STATE PLANE COORDINATE		TOTAL DEPTH (FT): 19.5	GROUND ELEVATION (FT): 5936.66	PROJECT NUMBER: OU2RI	LOG OF BORING NUMBER
NORTH:	749879.89	AREA: MOUND AREA	CASING DIAMETER (IN): 2.0	GEOLOGIST: L.A. GUST	02291
EAST:	2086138.97	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 10/31/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 9.5 FT. - 6.5 FT. BACKFILL MATERIAL: BENTONITE 19.5 FT - 18.5 FT.

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
						0				Top soil, start of boring at 0.90 ft.
				0.00 /0.90	5936				SC	Clayey Sand with some silt - dark yellowish brown (10YR4/2), coarse- to very fine-grained sand, poorly graded, angular to sub-angular, maximum size gravel 1/2" diameter, average size 1/4", medium plasticity, dominant lithology sand quartz with some dark minerals, K-spar and trace mica, some iron staining on grains, gravel primarily arkosic arenite with trace quartzite, trace limonite throughout, some caliche throughout, no apparent bedding, moist, abundant roots at 0.9-1.2' and some roots at 1.2-6.2', (possibly fill). 5% gravel, 49% sand, 18% silt, 28% clay
				0.30 /1.30	5935	1				
						2				
										No recovery for this interval.
					5934				SC	Clayey Sand with some silt - dark yellowish brown (10YR4/2), as described above.
						3				No recovery for this interval.
				0.70 /2.00	5933				SC	Clayey Sand with some silt - dark yellowish brown (10YR4/2), as described above.
										No recovery for this interval.
						4			CL	Sandy Clay with silt - moderate yellowish brown (10YR5/4), fine-grained sand, maximum size gravel 2" diameter, average size 1" diameter, poorly graded, sub-angular, medium plasticity, dominant lithology sand quartz with trace rock fragments, dark minerals, mica and iron nodules, abundant iron staining on grains, gravel primarily quartzite with some granite and trace K-spar, abundant caliche throughout, trace carbonaceous material, no apparent bedding, moist. 10% gravel, 26% sand, 16% silt, 48% clay
				0.70 /2.00	5932	5				
					5931	6			CL	Sandy Clay with some gravel - dark yellowish orange (10YR6/6) to pale olive (10Y6/2), very fine-grained sand, maximum size gravel 2" diameter, average 1/4" diameter, sub-angular, medium plasticity, dominant lithology sand clear quartz with trace dark minerals, mica and iron nodules, some iron staining on grains, gravel quartzite and quartz, abundant limonite throughout, some carbonaceous material, trace caliche clasts throughout, caliche layer at 8.6-8.7', no preferred bedding orientation, moist, bedrock like appearance. 6% gravel, 19% sand, 5% clay. Top of bedrock at 8.8 ft.
				2.00 /2.00	5930	7				
					5929	8			CLAYSTONE	Claystone - light olive gray (5Y5/2) with some dark yellowish orange (10YR6/6), very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, argillaceous cement, non-friable, dominant lithology sand clear quartz with trace iron nodules, dark minerals and mica, trace limonite throughout, sand layer with abundant iron staining and caliche at 9.2-9.3', some carbonaceous material and caliche at 9.3-9.5', no apparent bedding or fractures, moist, weathered. 4% sand, 4% silt, 92% clay
				2.00 /2.00	5928	9				
					5927	10				VOA sample obtained from this interval

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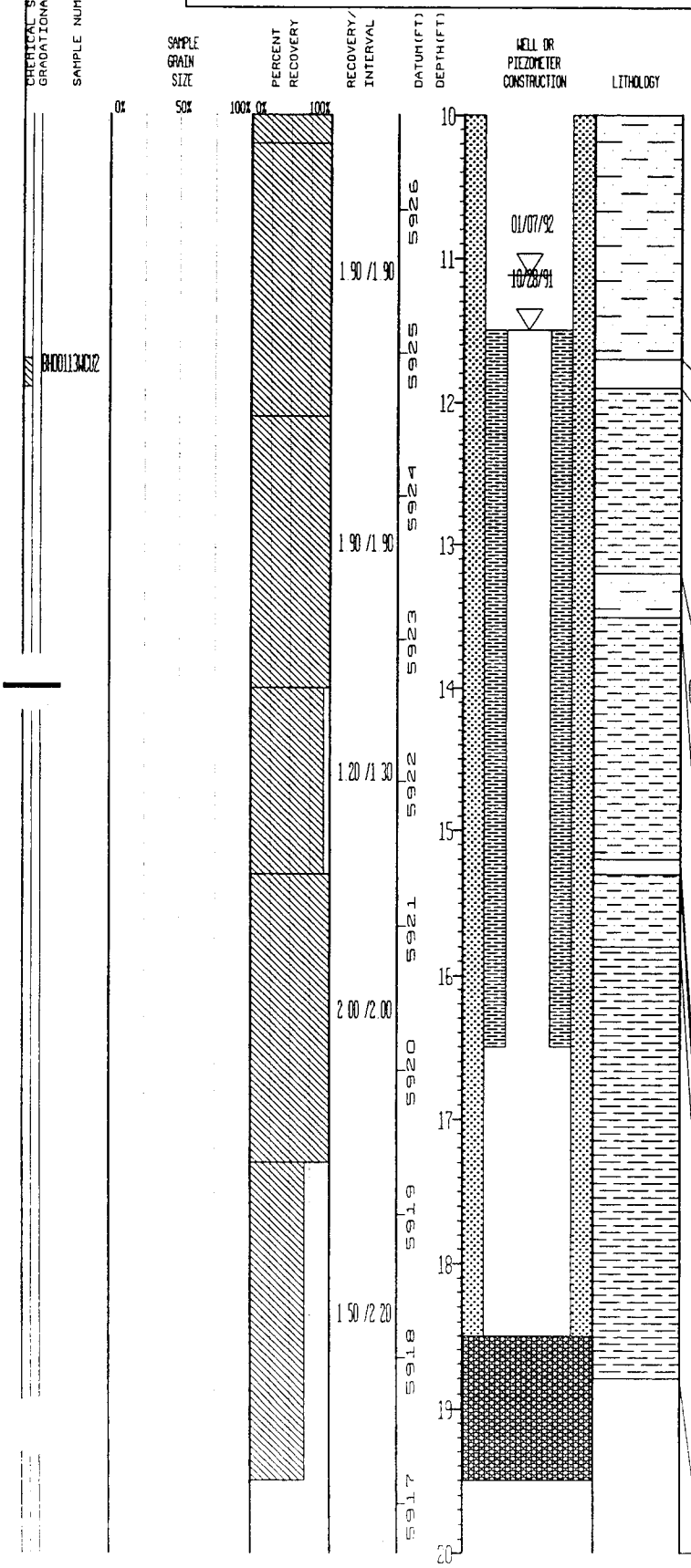
STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 19.5	GROUND ELEVATION (FT):	5936.66	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749879.89	AREA: MOUND AREA	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	02291
EAST:	2086138.97	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/31/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 9.5 FT. - 6.5 FT. BACKFILL MATERIAL: BENTONITE 19.5 FT. - 18.5 FT.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
CLAYEY SANDSTONE	Clayey Sandstone with some silt - pale olive (10Y6/2) to dusky yellow (5Y6/4), fine- to very fine-grained sand, well sorted, sub-angular to sub-rounded, approximately 20% porosity, argillaceous cement, moderately to highly friable, dominant lithology sand clear quartz, with some dark minerals and trace mica and iron nodules, some iron staining on grains, trace clay clasts with carbonaceous material throughout, increase in clay content at 10.4-11.9', massive, trace horizontal bedding with iron staining at 10.1-10.2', no apparent fractures, saturated, weathered. 57% sand, 11% silt, 32% clay
	VOA sample obtained from this interval
SANDY CLAYSTONE	Sandy Claystone with some silt - pale olive (10Y6/2) to dusky yellow (5Y6/4), very fine-grained sand, well sorted, sub-angular, slightly friable, approximately 15% porosity, argillaceous cement, dominant lithology sand clear quartz with some iron nodules and trace dark minerals and mica, some limonite and carbonaceous throughout, no preferred bedding orientation, some vertical healed fractures with iron throughout, very moist to saturated, weathered. 21% sand, 18% silt, 61% clay
CLAYEY SANDSTONE	Clayey Sandstone - dusky yellow (5Y6/4), fine- to very fine-grained sand, well sorted, sub-rounded to rounded, approximately 25% porosity, argillaceous cement, highly friable, dominant lithology sand clear quartz with some dark minerals and trace iron nodules and mica, some iron staining on grains, trace limonite and some clay clast with trace carbonaceous material throughout, massive, no apparent bedding or fractures, saturated, weathered. 79% sand, 5% silt, 16% clay
SANDY CLAYSTONE	Sandy Claystone with some silt - pale olive (10Y6/2) to dusky yellow (5Y6/4), very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with some dark minerals and iron nodules, trace mica, trace carbonaceous material throughout, increase to abundant limonite at 15.0-15.4', trace vertical healed fracture with iron at 13.5-13.9', no apparent bedding, moist, weathered. 19% sand, 10% silt, 71% clay
	No recovery for this interval
SANDY CLAYSTONE	Sandy Claystone with some silt - pale olive (10Y6/2) to dusky yellow (5Y6/4), as described above
CLAYSTONE	Claystone with some sand - olive gray (5Y3/2) to dusky yellow (5Y6/4), very fine-grained sand, well sorted, sub-angular, argillaceous cement, approximately 10% porosity, slightly friable, highly broken, dominant lithology sand clear quartz with trace dark minerals and mica, some iron nodules and trace carbonaceous and clay clasts throughout, lignitic coal at 17.3-17.6', no preferred bedding orientation, abundant 0-90 degree healed fractures with iron at 16.2-17.1' and 18.3-18.6', abundant 0-30 degree fractures at 17.4-17.5', moist, slightly weathered. 11% sand, 5% silt, 84% clay

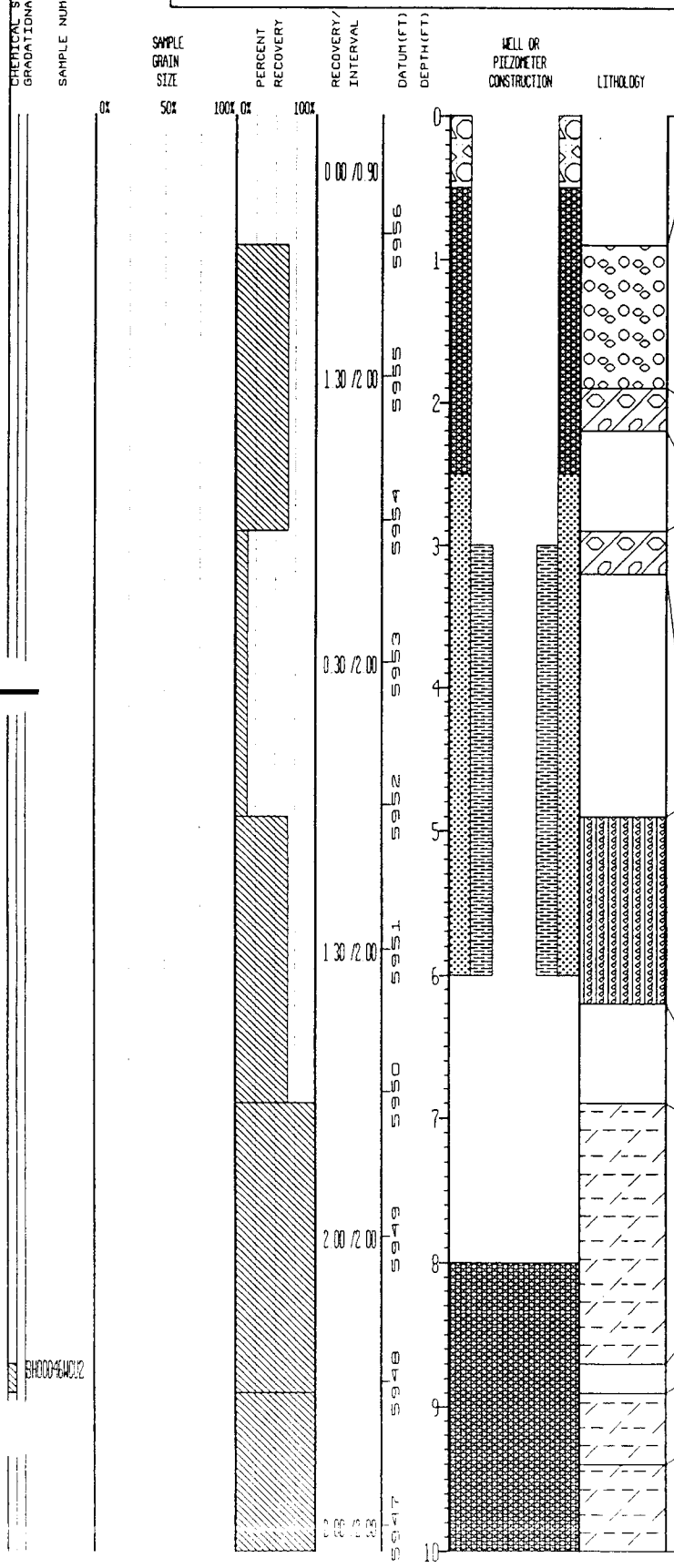
STATE PLANE COORDINATE	TOTAL DEPTH (FT): 19.5	GROUND ELEVATION (FT): 5936.66	PROJECT NUMBER: 002RI	LOG OF BORING NUMBER:	
NORTH: 749879.89	AREA: MOUND AREA	CASING DIAMETER (IN): 2.0	GEOLOGIST: L.A. GUST	02291	
EAST: 2086138.97	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 10/31/91		

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 9.5 FT. - 6.5 FT. BACKFILL MATERIAL: BENTONITE 19.5 FT. - 18.5 FT.

CHEMICAL SAMPLE / GRADATIONAL S.	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					5916	20				No recovery for this interval.
					5915	21				Total depth at 19.5 ft.
					5914	22				
					5913	23				
					5912	24				
					5911	25				
					5910	26				
					5909	27				
					5908	28				
					5907	29				
						30				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 12.9	GROUND ELEVATION (FT):	5956.82	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749852.87	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.A. JEHN	02391
EAST:	2086599.70	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/12/91	

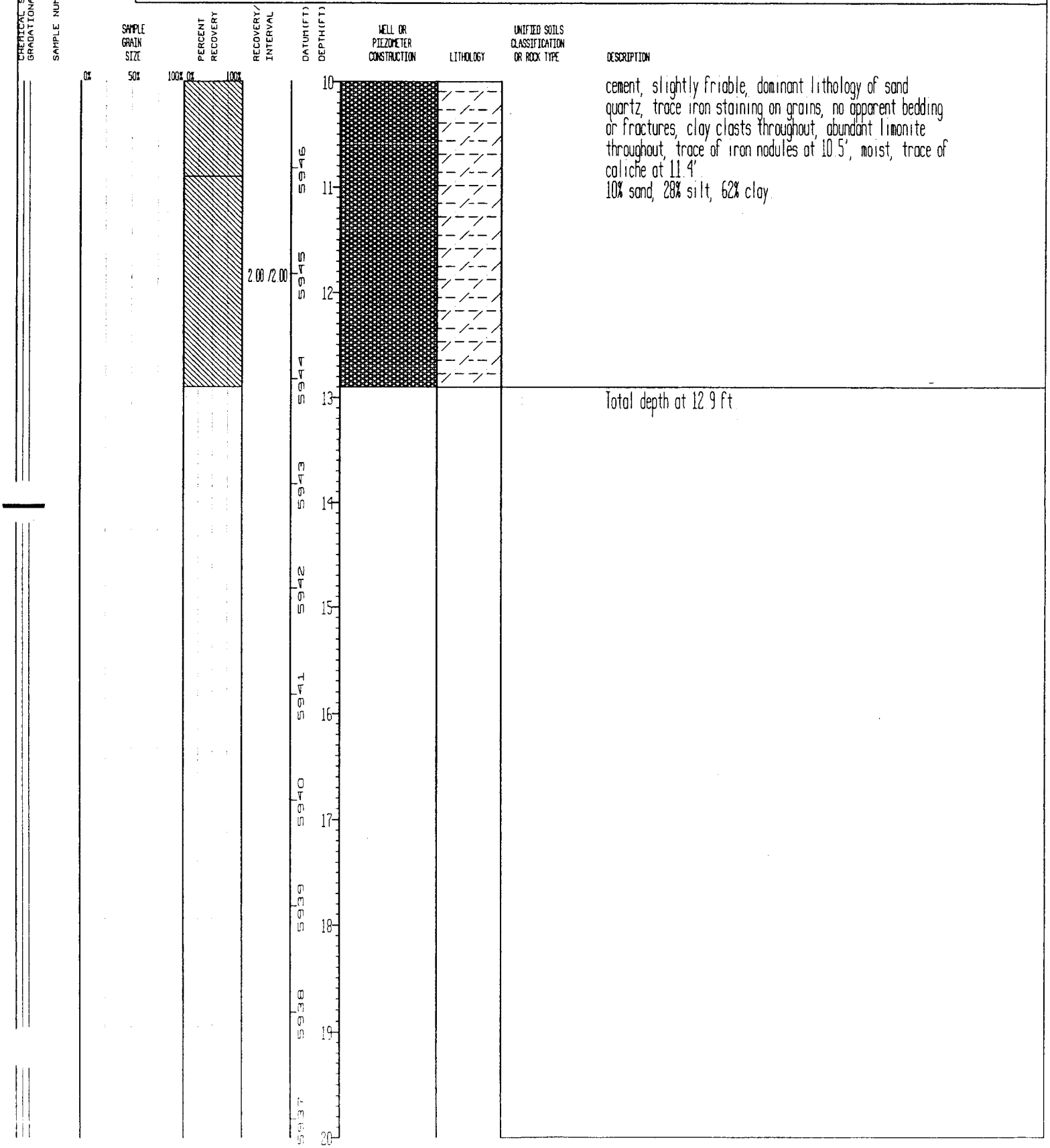
REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 2.5 FT. - 0.5 FT. BACKFILL MATERIAL: BENTONITE 12.9 FT. - 8.0 FT.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	Top soil, start of boring at 0.90 ft.
GW	Sandy Gravel - grayish brown (5YR3/2), maximum size gravel 2" diameter, average 1" diameter, coarse- to fine-grained sand, well graded, sub-angular, low plasticity, gravel primarily quartzite with trace of granite, dominant lithology sand quartz with some granitic rock fragments and trace of mica, some iron staining on grains, no apparent bedding, moist, abundant roots. 64% gravel, 32% sand, 3% silt, 1% clay.
GC	Sandy Gravel with some clay - grayish orange (10YR7/4), as described below.
	No recovery for this interval.
GC	Sandy Gravel with some clay - grayish orange (10YR7/4), maximum gravel size 1 1/2" diameter, average 3/4" diameter, coarse- to fine-grained sand, moderately graded, sub-rounded gravel, sub-angular to sub-rounded sand, low plasticity, gravel primarily quartzite, dominant lithology of sand quartzite with trace of mica, trace of iron staining on grains, abundant caliche throughout, dry, trace of roots. 65% gravel, 22% sand, 3% silt, 10% clay.
	No recovery for this interval.
SM	Gravelly Sand with some silt - light brown (5YR5/6), maximum gravel size 1/2" diameter, average 1/2" diameter, coarse- to fine-grained sands, poorly graded, sub-rounded gravel, sub-angular sand, low plasticity, gravel primarily quartzite, dominant lithology of sand quartzite with trace of granitic fragments and mica, trace of iron staining on grains, no apparent bedding, dry to moist. 14% gravel, 68% sand, 13% silt, 5% clay.
	No recovery for this interval. Top of bedrock at 6.9 ft.
SILTY CLAYSTONE	Silty Claystone with some sand - light olive gray (5Y5/2), very fine-grained sand, well sorted, sub-angular, approximately 5% porosity, argillaceous with trace caliche cement, slightly friable, dominant lithology sand clear quartz, trace of iron staining on grains, no apparent bedding or fractures, dry to moist, abundant caliche inclusions throughout. 8% sand, 23% silt, 69% clay.
	VOA sample obtained from this interval.
SILTY CLAYSTONE	Silty Claystone with some sand - light olive gray (5Y5/2), as described above.
SILTY CLAYSTONE	Silty Claystone with some sand - light olive brown (5Y5/6), very fine- to fine-grained sand, well sorted, sub-angular, approximately 8% porosity, argillaceous with trace of caliche.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 12.9	GROUND ELEVATION (FT):	5956.82	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749852.87	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.A. JEHN	02391
EAST:	2086599.70	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/12/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 2.5 FT. - 0.5 FT. BACKFILL MATERIAL: BENTONITE 12.9 FT. - 8.0 FT.



STATE PLANE COORDINATE	TOTAL DEPTH (FT): 24.2	GROUND ELEVATION (FT): 5944.54	PROJECT NUMBER: 002/RI	LOG OF BORING NUMBER:
NORTH: 749948.52	AREA: MOUND	CASING DIAMETER (IN): 2.0	GEOLOGIST: J.P. O'BRIEN	02491
EAST: 2086432.04	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 11/06/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 10.8 FT. - 7.8 FT. BACKFILL MATERIAL: BENTONITE 24.2 FT. - 18.8 FT.

CHEMICAL SAMP/ GRADATIONAL S	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%	0.00 /0.90	5944	0				Top soil, start of boring at 0.90 ft.
				0.00 /1.50	5943	1			CL	Clay with some sand and silt - olive gray (5Y4/1), very fine-grained sand, poorly graded, sub-angular, medium plasticity, maximum size gravel 2" diameter, average 1/2" diameter, dominant lithology sand quartz with some dark minerals and mica, gravel primarily quartzite, some limonite throughout, trace caliche clast throughout, trace carbonaceous material at 2.9-3.0', no apparent bedding, moist, highly broken or brecciated at 2.4-5.1', bedrock like appearance, increase in competency at 5.1-5.3'. 3% gravel, 5% sand, 5% silt, 87% clay.
					5942	2				
				1.40 /2.40	5941	3				
					5940	4				
					5939	5				
				1.40 /2.00	5938	6			ML	Sandy Silt with abundant gravel - brownish black (5YR2/1), coarse- to fine-grained sand, maximum size gravel 1" diameter, average .5" diameter, well graded, angular to sub-angular, low plasticity, dominant lithology sand quartz with abundant rock fragments and trace mica and dark minerals, trace limonite throughout, some caliche clast, no apparent bedding, moist. 27% gravel, 31% sand, 33% silt, 8% clay.
				1.70 /1.90	5937	7			CL	Clay with some sand - pale olive (10Y6/2) with some dark yellowish orange (10Y6/6) mottling, very fine-grained sand, maximum size gravel 1/2" diameter, average 1/4" diameter, poorly graded, sub-angular, medium plasticity, dominant lithology sand quartz with trace dark minerals and mica, trace iron staining on grains, gravel primarily quartzite with some kaolinized coating, trace caliche clast and coating on gravels and carbonaceous material throughout, some limonite throughout, no apparent bedding, moist, highly broken, bedrock like appearance. 2% gravel, 10% sand, 8% silt, 80% clay. Top of bedrock at 8.5 ft.
					5936	8				
				1.40 /1.40	5935	9			CLAYSTONE	Claystone with some sand - olive gray (5Y4/1), very fine-grained sand, well sorted, sub-angular, approximately 10%
						10				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 24.2	GROUND ELEVATION (FT):	5944.54	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 749948.52	AREA: MOUND	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	02491
EAST: 2086432.04	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/06/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 10.8 FT. - 7.8 FT. BACKFILL MATERIAL: BENTONITE 24.2 FT. - 18.8 FT.

CHEMICAL SAMP / GRADATIONAL S.	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
						10				porosity, argillaceous cement, non- to slightly friable, dominant lithology sand clear quartz with trace dark minerals, iron nodules and mica, trace limonite throughout, increase to some limonite at 8.8-9.2', trace clay clast throughout, abundant caliche clast at 9.4-10.1', no preferred orientation, planar features, brecciated texture controlling caliche, no apparent fractures, moist, weathered. 6% sand, 4% silt, 90% clay.
				2.10 /2.20	5934	11				
					5933				SILTY SANDSTONE	Silty Sandstone with some clay - pale olive (10Y6/2), very fine-grained sand, well sorted, sub-angular, approximately 15% porosity, argillaceous cement, moderately friable, dominant lithology sand clear quartz with trace dark minerals, mica and iron nodules, some iron staining on grains, some caliche throughout, abundant caliche at 11.4-11.6', trace limonite throughout, some clay clast throughout, sand clast at 11.1', no apparent bedding, low angle laminated bedding at 13.8', no apparent fractures, moist, weathered. 45% sand, 33% silt, 22% clay.
	BH00117WQ02					12				
					5932					
				1.90 /1.90		13				
					5931					
						14			SANDY SILTSTONE	Sandy Siltstone with some clay - pale olive (10Y6/2), fine- to very fine-grained sand, moderate to well sorted, sub-angular, approximately 15% porosity, argillaceous cement, moderately friable, dominant lithology sand clear quartz with some dark minerals and trace mica, trace iron staining on grains, trace limonite throughout, some clay clast throughout, trace caliche throughout, abundant caliche at 13.6-13.8', increase to abundant limonite at 13.5-14.6', no preferred bedding orientation, horizontal healed fracture with iron at 12.7' surrounded by horizontal grooves, 0 degree healed fractures with hematite at 13.4-13.5', 0 degree healed fractures with iron at 13.5-13.8', abundant clast with hematite and some carbonaceous material at 14.1-14.6', moist, weathered, highly broken-brecciated appearance. 32% sand, 48% silt, 20% clay.
					5930					
				1.30 /1.90		15				
					5929					
						16				
					5928					
				0.90 /1.90		17			IRONSTONE	Ironstone - dark reddish brown (10R3/4) to dark yellowish orange (10YR6/6), very fine-grained sand, sub-angular, well sorted, approximately 5% porosity, iron precipitate cement, non- to slightly friable, primarily hematite and limonite with trace clear quartz, up to 1" diameter concretion-like nodules, no apparent bedding or fractures, dry, weathered.
					5927					
						18			CLAYEY SILTSTONE	Clayey Siltstone with some sand - dusky yellow (5Y6/4), very fine-grained sand, well sorted, sub-angular, approximately 15% porosity, argillaceous cement, moderately friable, dominant lithology sand clear quartz with some dark minerals and trace iron nodules and mica, some iron staining on grains, trace carbonaceous material and clay clast throughout, trace horizontal bedding at 16.5-17.0', no apparent fractures, moist, weathered. 19% sand, 49% silt, 32% clay.
					5926					
				1.30 /2.00		19				
					5925					
						20			SILTY CLAYSTONE	Silty Claystone with some sand - pale olive (10Y6/2) to olive

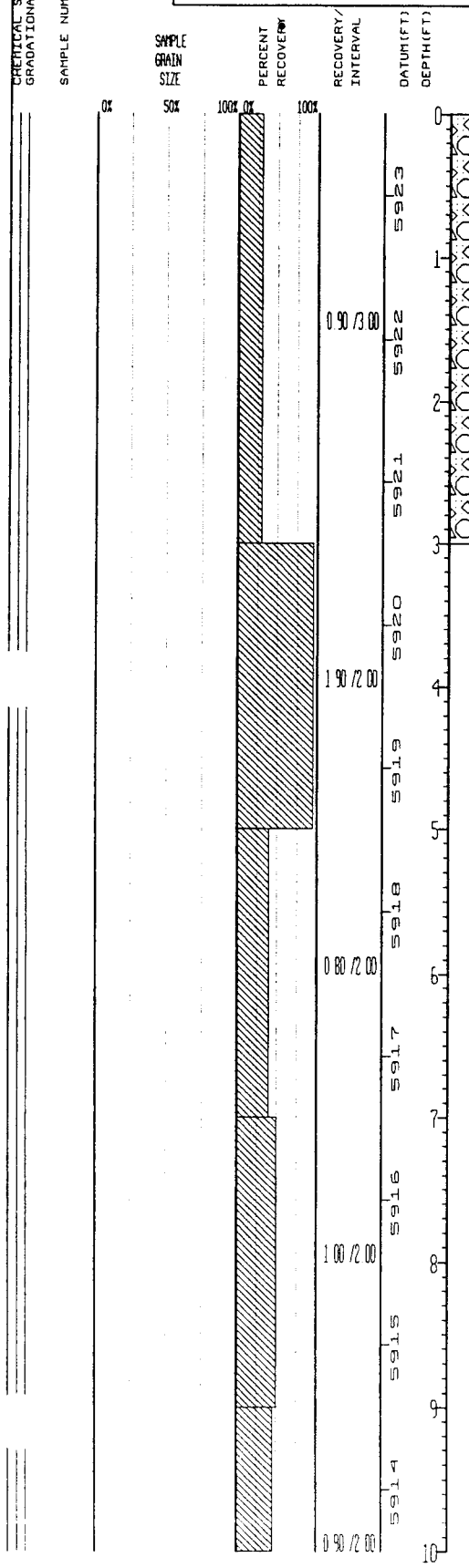
STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 24.2	GROUND ELEVATION (FT):	5944.54	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 749948.52	AREA: MOUND	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	02491
EAST: 2086432.04	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/06/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 10.8 FT. - 7.8 FT. BACKFILL MATERIAL: BENTONITE 24.2 FT. - 18.8 FT.

CHEMICAL SAMP / GRADATIONAL S	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%	1.40 /2.00	5924	20				gray (5Y4/1), very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, argillaceous cement, non- to slightly friable, dominant lithology sand clear quartz with trace dark minerals and mica, trace limonite, carbonaceous material and clay clast throughout, trace horizontal bedding 20.5-20.6', highly broken-brecciated appearance, increase in competency at 18.6-19.3', abundant healed fractures with iron at 22.0-22.1', abundant clay clast at 20.0-20.5', moist, slightly weathered. 8% sand, 32% silt, 60% clay.
					5923	21				
					5922	22				
				1.50 /2.20	5921	23				
					5920	24				Total depth at 24.2 ft.
					5919	25				
					5918	26				
					5917	27				
					5916	28				
					5915	29				
						30				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 54.0	GROUND ELEVATION (FT):	5923.57	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	750936.72	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	02591
EAST:	2089162.70	LOCATOR NUMBER: I16	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/13/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 41.0 FT. - 38.1 FT. BACKFILL MATERIAL: BENTONITE 54.4 FT. - 51.1 FT.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	Top soil, start of boring at 0.90 ft.
SC	Clayey Sand with some gravel and silt - pale brown (5Y5/2) to very pale orange (10YR8/2) at 1.6-1.7', maximum gravel diameter .15', average .06', fine- to coarse-grained sand, well graded, sub-rounded, low plasticity, gravel is primarily caliche coated quartzite, sand contains abundant caliche/calcrete, organic/carbonaceous material, quartz, some rock fragments, top soil loaded into very thin caliche bed at 1.6', moist. 17% gravel, 46% sand, 8% silt, 29% clay
GM	Sandy Gravel with some silt and clay - grayish orange (10YR7/4) to light brown (5YR6/4), as described below
	No recovery for this interval.
GM	Sandy Gravel with some silt and clay - grayish orange (10YR7/4) to light brown (5YR6/4), maximum gravel diameter .21', average .12', fine- to coarse-grained sand, well graded, angular to sub-rounded, low plasticity, gravel is primarily quartzite with some arkosic arenite at 3.3-3.6' and weathered granite at 9.8', sand contains abundant quartz, some rock fragments, feldspar, dark minerals, trace mica, limonite stain, thin caliche beds at 4.1', 4.3', increased sand and no gravel at 4.3-5.0', slightly moist to moist. 40% gravel, 32% sand, 15% silt, 13% clay
	No recovery for this interval.
GM	Sandy Gravel with some silt and clay - grayish orange (10YR7/4) to light brown (5YR6/4), as described above.
	No recovery for this interval.
GM	Sandy Gravel with some silt and clay - grayish orange (10YR7/4) to light brown (5YR6/4), as described above

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 54.0	GROUND ELEVATION (FT): 5923.57	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:
NORTH: 750936.72	AREA: NE TRENCHES	CASING DIAMETER (IN): 2.0	GEOLOGIST: J.P. O'BRIEN	02591
EAST: 2089162.70	LOCATOR NUMBER: I16	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 03/13/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 41.0 FT. - 38.1 FT. BACKFILL MATERIAL: BENTONITE 54.4 FT. - 51.1 FT.

CHEMICAL SAMP/ GRADATIONAL S	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%	0.90 /2.00		10				No recovery for this interval.
					5913	11			GM	Sandy Gravel with some silt and clay - grayish orange (10YR7/4) to light brown (5YR6/4), as described above.
				0.50 /2.00	5912	12				No recovery for this interval.
					5911	13			GM	Sandy Gravel with some silt and clay - grayish orange (10YR7/4) to light brown (5YR6/4), as described above.
				1.80 /3.00	5910	14			SC	Clayey Sand with some silt - moderate brown (5YR4/4) to light brown (5YR5/6), maximum gravel diameter .11', average .02', fine- to coarse-grained sand, poorly graded, gravel is rounded, sand is sub-angular to sub-rounded, moderate plasticity, gravel is primarily quartzite, sand contains abundant quartz, some rock fragments, dark minerals, kaolinized feldspar, trace muscovite, carbonaceous material at 16.9-18.0', kaolinized feldspar and imbricated pebbles throughout, slightly moist. 2% gravel, 53% sand, 9% silt, 36% clay.
					5909	15				No recovery for this interval.
				2.00 /2.00	5908	16			SC	Clayey Sand with some silt - moderate brown (5YR4/4) to light brown (5YR5/6), as described above.
					5907	17			SM/gm	Gravelly Sand with some silt and clay - light brown (5YR5/6) maximum gravel diameter .16', average diameter .09', well graded, angular to sub-rounded, fine- to coarse-grained sand, low plasticity, gravel is primarily iron stained quartzite and weathered granite, sand contains abundant quartz, some rock fragments, dark minerals, feldspar, trace mica, gravel is scoured and imbricated into unit below, contact between units dips 30 degrees, slightly moist. 31% gravel, 35% sand, 19% silt, 15% clay.
					5906	18			SM	Silty Sand with some clay - light brown (5YR5/6), as described below.
				1.00 /2.00	5905	19				No recovery for this interval.
					5904	20				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 54.0	GROUND ELEVATION (FT):	5923.57	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 750936.72	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	02591
EAST: 2089162.70	LOCATOR NUMBER: I16	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/13/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 41.0 FT. - 38.1 FT. BACKFILL MATERIAL: BENTONITE 54.4 FT. - 51.1 FT.

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50%	100% 0%	100%		20			SM:	Silty Sand with some clay - light brown (5YR5/6), maximum gravel diameter .04', average .02', fine- to coarse-grained sand, poorly graded, gravel is rounded, sand is sub-angular to rounded, moderate plasticity, gravel is primarily quartzite, with trace arkosic arenite at 20.5', sand contains abundant quartz, some rock fragments, feldspar, kaolinized feldspar, mica, slightly moist. 1% gravel, 55% sand, 26% silt, 18% clay
				1.20 /2.00	5903	21			GM:	Sandy Gravel with some silt and clay - light brown (5YR5/6), as described below
					5902	22				No recovery for this interval
				1.08 /2.00	5901	23			GM:	Sandy Gravel sith some silt and clay - light brown (5YR5/6), maximum gravel diameter > .25', average .07', fine- to coarse-grained sand, well graded, gravel is fractured or rounded, sand is angular to sub-rounded, low plasticity, gravel is primarily quartztite with some granite and trace arkosic arenite, sand contains abundant quartz, some rock fragments, dark minerals, feldspar, kaolinized feldspar, trace mica, slightly moist to moist. 43% gravel, 30% sand, 15% silt, 12% clay
					5900	24				No recovery for this interval
				1.10 /2.00	5899	25			GM:	Sandy Gravel with some silt and clay - light brown (5YR5/6), as described above
					5898	26				No recovery for this interval
				0.90 /2.00	5897	27			GM:	Sandy Gravel with some silt and clay - light brown (5YR5/6), as described above.
					5896	28				No recovery for this interval
				0.60 /2.00	5895	29			GM	Sandy Gravel with some silt and clay - light brown (5YR5/6), as described above
					5894	30				No recovery for this interval

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 54.0	GROUND ELEVATION (FT):	5923.57	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 750936.72	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	02591
EAST: 2089162.70	LOCATOR NUMBER: I16	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/13/92	

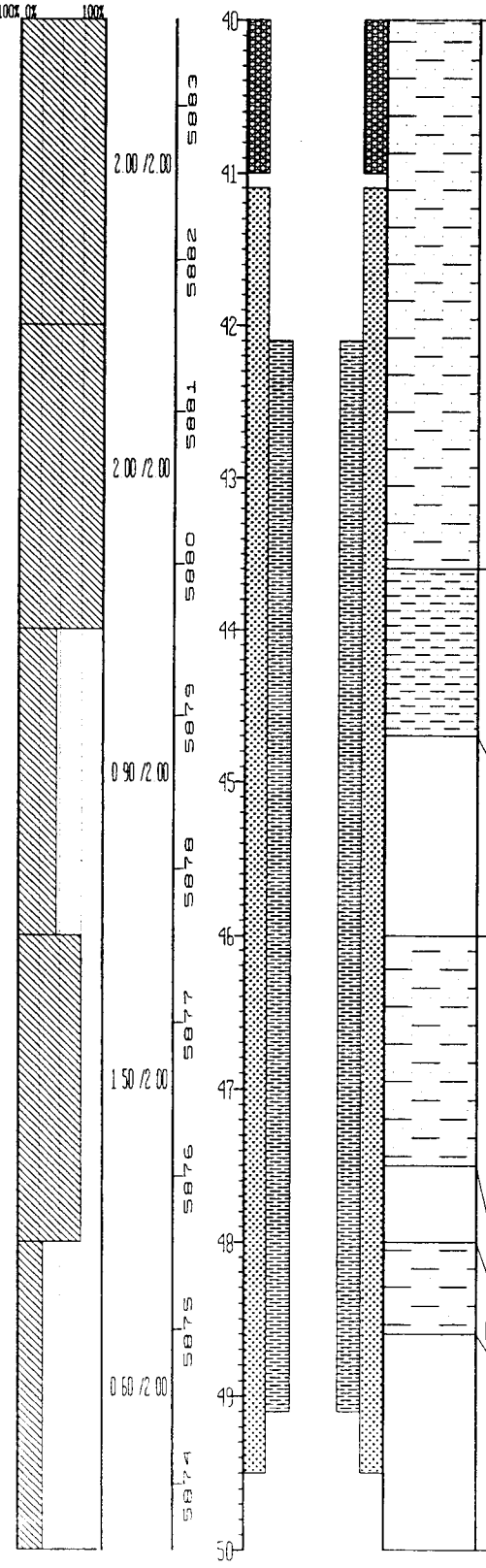
REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 41.0 FT. - 38.1 FT. BACKFILL MATERIAL: BENTONITE 54.4 FT. - 51.1 FT.

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%			30			GM:	Sandy Gravel with some silt and clay - light brown (5YR5/6), as described above.
				1.50 /2.00	5893	31			GC:	Sandy Gravel with some clay and silt - moderate yellowish brown (10YR5/4), maximum gravel diameter .2', average .06', fine- to coarse-grained sand, well graded, gravel is rounded, sand is angular to rounded, low to medium plasticity, gravel is primarily quartzite with some gneiss and weathered granite, sand contains abundant quartz, some rock fragments, feldspar, kaolinized feldspar, trace dark minerals, iron/limonite stain, slightly moist. 41% gravel, 29% sand, 10% silt, 20% clay
					5892	32				No recovery for this interval.
				0.20 /2.00	5891	33			GC:	Sandy Gravel with some clay and silt - moderate yellowish brown (10YR5/4), as described above.
					5890					No recovery for this interval
				1.00 /2.00	5889	34			GM:	Sandy Gravel with some silt and clay - pale yellowish brown (10YR6/2) to moderate brown (5YR4/4), maximum gravel diameter > .25', average .13', fine- to coarse-grained sand, well graded, gravel is rounded, sand is sub-angular to rounded, low plasticity, gravel is primarily quartzite with some granite - both have some manganese oxide stain, sand contains abundant quartz, some rock fragments, feldspar, dark minerals, trace mica, contact with underlying bedrock is sharp and erosional with gravel loaded into bedrock, moist to 36.0', wet to 36.6', saturated at 36.6-39.8'. 42% gravel, 33% sand, 17% silt, 8% clay. Top of bedrock at 39.8'
					5888	35				
				0.90 /2.00	5887	36			GM:	Sandy Gravel with some silt and clay - pale yellowish brown (10RY6/2) to moderate brown (5YR4/4), as described above.
					5886	37				No recovery for this interval
				0.80 /2.00	5885	38			GM:	Sandy Gravel with some silt and clay - pale yellowish brown (10YR6/2) to moderate brown (5YR4/4), as described above.
					5884	39				No recovery for this interval
						40			GM:	Sandy Gravel with some silt and clay - pale yellowish brown, (10YR6/2) to moderate brown (5YR4/4), as described above

STATE PLANE COORDINATE	TOTAL DEPTH (FT): 54.0	GROUND ELEVATION (FT):	5923.57	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 750936.72	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	02591
EAST: 2089162.70	LOCATOR NUMBER: I16	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/13/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 41.0 FT. - 38.1 FT. BACKFILL MATERIAL: BENTONITE 54.4 FT. - 51.1 FT.

DEPTH | CHEMICAL SAMPLE | GRADATIONAL SIZE | SAMPLE NUMBER | SAMPLE GRAIN SIZE (0% 50% 100%) | PERCENT RECOVERY (0% 100%) | RECOVERY/INTERVAL | DATUM (FT) | DEPTH (FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION



CLAYEY SANDSTONE: Clayey Sandstone with some silt - yellowish gray (5Y7/2) to pale yellowish orange (10YR8/6) where iron stained (40.9-41.2', 43.3-43.6'), very fine- to medium-grained, moderately sorted, sub-rounded to well rounded, approximately 18% porosity, argillaceous cement, highly friable, abundant frosted quartz, rock fragments, some dark minerals, trace feldspar, kaolinized feldspar, limonite/iron stain, clear quartz, iron nodules at 41.8', carbonaceous material at 40.1-40.8', 42.4-43.5', slightly moist.
64% sand, 10% silt, 26% clay.

SANDY CLAYSTONE: Sandy Claystone with some silt - light olive gray (5Y6/1), very fine- to fine-grained, well sorted, sub-rounded to rounded, approximately 8% porosity, argillaceous cement, moderately friable, abundant frosted quartz, trace rock fragments/dark minerals, limonite/iron stain, faintly laminated, slightly moist.
30% sand, 8% silt, 62% clay.

No recovery for this interval

CLAYEY SANDSTONE: Clayey Sandstone/Sandy Claystone - yellowish gray (5Y7/2) to pale yellowish orange (10YR8/6) where iron stained (48.2-48.5', 47.4'), very fine- to medium-grained, moderately sorted, sub-angular to rounded, approximately 12% porosity, argillaceous cement, highly friable, abundant frosted quartz, rock fragments/dark minerals, some feldspar, trace kaolinized feldspar, limonite/iron stain, clear quartz, thinly laminated, laminea dip 10 degrees at 46.0-46.9', carbonaceous material along laminea, iron nodule at 47.4', increased clay content and clay bed thickness at 48.2-50.0'.
48% sand, 5% silt, 47% clay.

No recovery for this interval

CLAYEY SANDSTONE: Clayey Sandstone/Sandy Claystone - yellowish gray (5Y7/2) to pale yellowish orange (10YR8/6), as described above.

No recovery for this interval

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 54.0	GROUND ELEVATION (FT):	5923.57	PROJECT NUMBER:	OU2/RI
NORTH: 750936.72	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST: 2089162.70	LOCATOR NUMBER: I16	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/13/92

LOG OF BORING NUMBER: 02591

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 41.0 FT. - 38.1 FT. BACKFILL MATERIAL: BENTONITE 54.4 FT. - 51.1 FT.

CHEMICAL SAMP / GRADATIONAL S.	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%							
				1.90 /2.00	5873	50			SANDY CLAYSTONE	Sandy Claystone - medium dark gray (N4) to grayish black (N2) (50.0-57.0'), very fine- to fine-grained, well sorted, sub-rounded, approximately 5% porosity, argillaceous cement, slightly friable, abundant quartz, some dark minerals/rock fragments, very carbon rich, lignite/coal at 50.0-51.0', vertical (plant stem?) carbonaceous material at 52.4', faintly laminated, dry. 16% sand, 5% silt, 79% clay.
					5872	51				
	BH00573UU2									VOA sample obtained from this interval.
					5871	52			SANDY CLAYSTONE	Sandy Claystone - medium dark gray (N4) to grayish black (N2), as described above
				1.50 /2.00		53				
					5870	54				No recovery for this interval.
										Total depth at 54.0 ft.
					5869	55				
					5868	56				
					5867	57				
					5866	58				
					5865	59				
					5864	60				

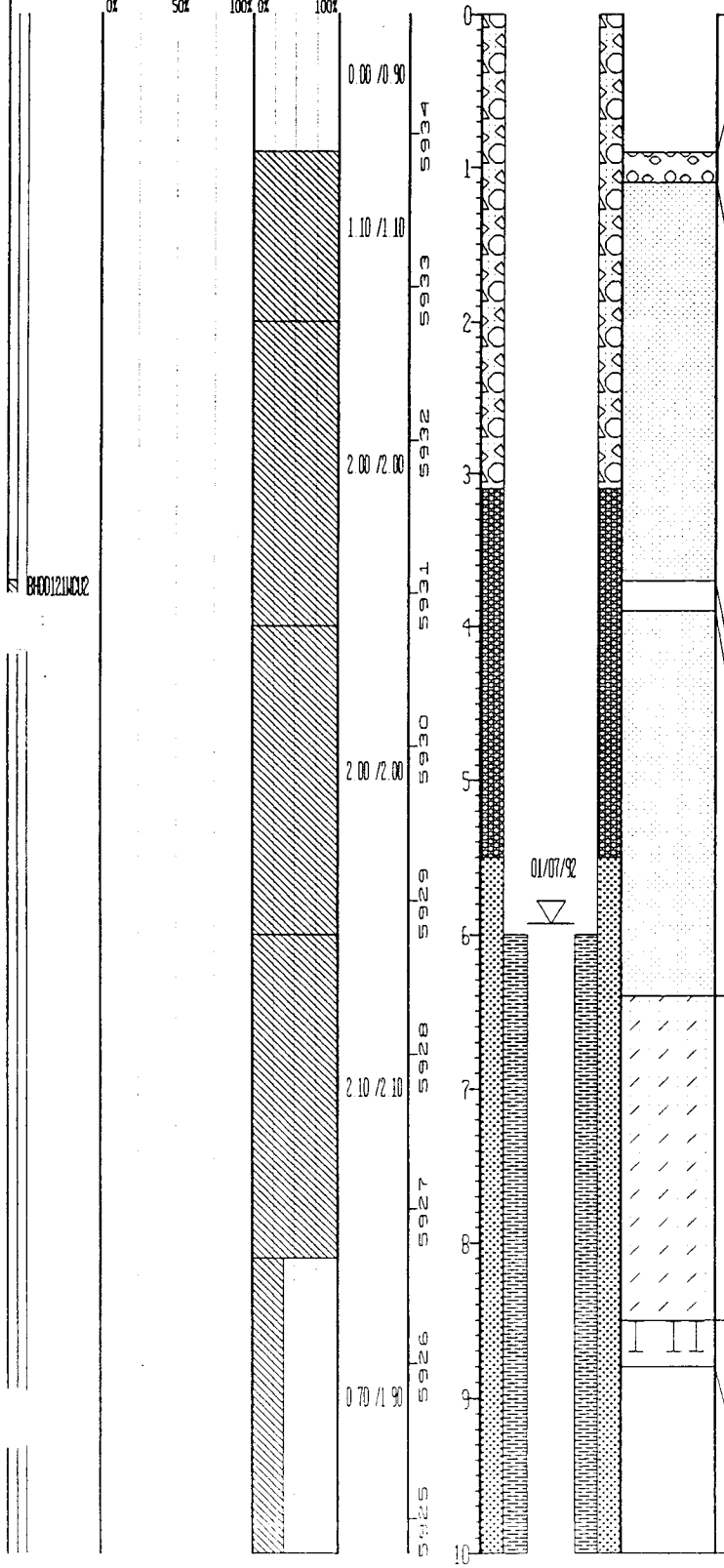
STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 18.3	GROUND ELEVATION (FT):	5934.78	PROJECT NUMBER:	OU2RI
NORTH:	750384.91	AREA: MOUND	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST:	2086042.69	LOCATOR NUMBER: I13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/12/91

REMARKS: HOLLOW STEM AUGER BENTONITE SEAL 5.5 FT - 2.3 FT BACKFILL MATERIAL: BENTONITE 18.3 FT - 18.0 FT

LOG OF BORING NUMBER: 02691

CHEMICAL SAMPT / GRADATIONAL SI / DEPTH / SAMPLE NUMBER

SAMPLE GRAIN SIZE (0% – 50% – 100%) | PERCENT RECOVERY (0% – 100%) | RECOVERY/INTERVAL | DATUM (FT) | DEPTH (FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION



Top soil, start of boring at 0.90 ft.

GW — Sandy Gravel - dusky yellow (5Y6/4) to light olive (10Y5/4), maximum size gravel 2" diameter, very fine-grained sand, well graded, sub-angular, low plasticity, gravel quartzite, sand clear quartz with trace mica and dark minerals, trace iron staining on grains, some limonite throughout, no apparent bedding, moist, some roots present. 75% gravel, 21% sand, 3% silt, 1% clay.

Top of bedrock at 1.1 ft

SANDSTONE — Sandstone with some silt - pale olive (10Y6/2) to dusky yellow (5Y6/4), medium- to very fine-grained sand, moderately sorted, sub-angular to rounded, approximately 25% porosity, argillaceous and silica cement, highly friable, dominant lithology clear quartz with trace dark minerals, iron nodules and mica, abundant iron staining on grains, some limonite and trace carbonaceous material throughout, trace horizontal bedding at 1.5-1.9' and 3.5-3.7', interbedded clay layers at 2.3' and 2.9', 85 degree healed fracture with hematite surrounded by a 1/4" caliche band at 1.2-1.7', moist, trace caliche inclusions, wood fragments at 3.0', weathered, trace roots 80% sand, 18% silt, 2% clay

VOA sample obtained from this interval

SANDSTONE — Sandstone with some silt - pale olive (10Y6/2) to dusky yellow (5Y6/4), as described above

SILTY SANDSTONE — Silty Sandstone - dark yellowish orange (10YR6/6), fine- to very fine-grained sand with trace medium grained sand, moderate to well sorted, sub-angular to sub-round, approximately 20% porosity, argillaceous cement, highly friable, dominant lithology sand clear quartz with some dark minerals and trace mica, some iron staining on grains, abundant limonite throughout, some iron nodules at 7.6-8.5', low angle bedding with trace manganese at 7.2-7.5', no apparent fractures, moist, weathered 58% sand, 38% silt, 4% clay

IRONSTONE — Ironstone - dark reddish brown (10R2/4), heavily oxidized, iron precipitated cement, non-friable, iron oxidizes, concretion-like appearance, no apparent bedding or fractures, dry to moist

No recovery for this interval

STATE PLANE COORDINATE	TOTAL DEPTH (FT): 18.3	GROUND ELEVATION (FT):	5934.78	PROJECT NUMBER:	0U2RI
NORTH: 750384.91	AREA: MOUND	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST: 2086042.69	LOCATOR NUMBER: I13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/12/91

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 5.5 FT - 2.3 FT BACKFILL MATERIAL: BENTONITE 18.3 FT. - 18.0 FT

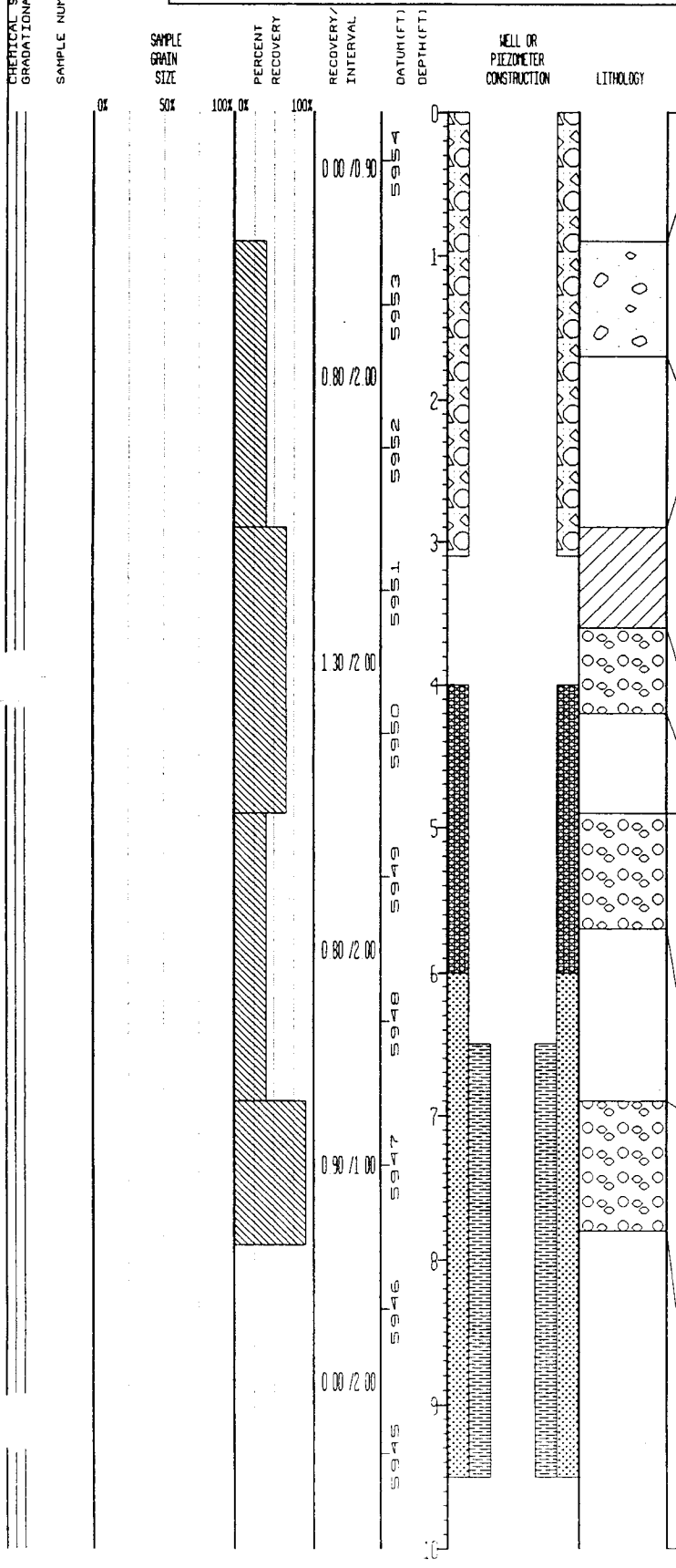
LOG OF BORING NUMBER: 02691

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50%	100% 0% 100%	2.10 /1.90	5924	10			SILTY CLAYSTONE	Silty Claystone with some sand - medium dark gray (N4), very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with trace dark minerals, trace limonite and iron nodules throughout, trace carbonaceous material throughout, cylindrical fossil at 10.7', trace vertical healed fracture with manganese and iron at 10.5-11.0', vertical healed fracture with iron stain at 12.1-15.6' with approximately 1/2" zone of alteration surrounding fracture, no preferred bedding orientation, moist to saturated, carbonaceous material at 11.4-11.8'. 5% sand, 35% silt, 60% clay
					5923	11	11/12/9			
				2.20 /2.20	5922	12				
	901234C02				5921	13				VOA sample obtained from this interval
				2.20 /2.20	5920	14			SILTY CLAYSTONE	Silty Claystone with some sand - medium dark gray (N4), as described above, 45-90 degree healed fractures with manganese and iron at 15.3-15.6', 45-90 degree healed fractures with iron at 16.0-18.3'
					5919	15				
				2.00 /2.00	5918	16				
					5917	17				
					5916	18				Total depth at 18.3 ft
					5915	19				
						20				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 15.9		GROUND ELEVATION (FT):	5954.34	PROJECT NUMBER:	OU2RI
NORTH:	749854.09	AREA: NE TRENCHES		CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST:	2087029.14	LOCATOR NUMBER:	H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/14/91

LOG OF BORING NUMBER: 02791

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 6.0 FT. - 4.0 FT. BACKFILL MATERIAL: BENTONITE 15.9 FT. - 11.5 FT.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	Top soil, start of boring at 0.90 ft.
GP	Organic Gravel with some sand - dusky brown (5YR2/2), maximum size gravel 2" diameter, average 1" diameter, coarse- to fine-grained sand, poorly graded, sub-angular to sub-rounded gravel, sub-angular sand, low plasticity, gravel primarily quartzite with some granite and quartz, dominant lithology sand quartz with some rock fragments, trace mica and dark minerals, no apparent bedding, moist, some roots. 87% gravel, 7% sand, 2% silt, 54% clay.
	No recovery for this interval.
CL	Caliche Clay with some gravel and sand - pinkish gray (5YR8/1), maximum size gravel 1" diameter, average 1/2" diameter, coarse- to fine-grained sand, poorly graded, sub-angular, low plasticity, gravel primarily quartzite with some quartz, dominant lithology sand quartz with some rock fragments and trace dark minerals, caliche coating on gravels, no apparent bedding, dry to moist. 11% gravel, 5% sand, 3% silt, 81% clay.
GW	Sandy Gravel with some clay - pale yellowish brown (10YR6/2), as described below.
	No recovery for this interval.
GW	Sandy Gravel with some clay - pale yellowish brown (10YR6/2), maximum size gravel greater than 2" diameter, average 1" diameter, coarse- to fine-grained sand, well graded, sub-angular, low plasticity, gravel primarily quartzite with some arkosic arenite, dominant lithology sand quartz with abundant rock fragments and trace dark minerals and mica, abundant caliche throughout, no apparent bedding, moist. 68% gravel, 21% sand, 2% silt, 9% clay.
	No recovery for this interval.
GW	Sandy Gravel with some clay - moderate brown (5YR4/4), maximum size gravel greater than 2" diameter, average size 1" diameter, coarse- to fine-grained sand, well graded, low plasticity, sub-angular, gravel primarily quartzite with some granite and trace weathered diorite, dominant lithology sand quartz with some rock fragments and trace mica, dark minerals and pyrite, some caliche throughout, trace limonite and carbonaceous material throughout, no apparent bedding, moist. 63% gravel, 28% sand, 2% silt, 7% clay.
	No recovery for this interval. Top of bedrock at 12.9 ft.

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 15.9	GROUND ELEVATION (FT):	5954.34	PROJECT NUMBER:	OU2RI
NORTH: 749854.09	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST: 2087029.14	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/14/91

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 6.0 FT - 4.0 FT. BACKFILL MATERIAL: BENTONITE 15.9 FT - 11.5 FT.

LOG OF BORING NUMBER: 02791

DEPTH	CHEMICAL SAMPLE / GRADATIONAL SI	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					0.00 /2.00	5944	10				
						5943	11				
					0.00 /1.00	5942	12				
					1.50 /1.00	5941	13			SANDY SILTSTONE	Sandy Siltstone with some clay - pale olive (10Y6/2), as described below
		RH0050AC02									VOA sample obtained from this interval.
					1.80 /2.00	5940	14			SANDY SILTSTONE	Sandy Siltstone with some clay - pale olive (10YR6/2), fine- to very fine-grained sand, well sorted, sub-angular to sub-rounded, approximately 15% porosity, argillaceous cement, moderately friable, dominant lithology sand clear quartz with trace dark minerals and mica, trace caliche inclusions, limonite and carbonaceous material, trace wood fragments, no apparent bedding or fractures, moist, increase to abundant limonite and increase in clay content from 15.1-15.5' 27% sand, 66% silt, 7% clay.
						5939	15				
						5938	16				No recovery for this interval.
											Total depth at 15.9'
						5937	17				
						5936	18				
						5935	19				
							20				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 14.9	GROUND ELEVATION (FT):	5953.09	PROJECT NUMBER:	0U2RI
NORTH: 749888.24	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST: 2087097.91	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/13/91

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 5.0 FT. - 3.0 FT. BACKFILL MATERIAL: BENTONITE 14.9 FT. - 11.0 FT.

LOG OF BORING NUMBER: 02891

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SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
0% 50% 100%	0% 100%	0.00 /0.90	5953	0				Top soil, start of boring at 0.90 ft.
		1.30 /2.00	5952	1			GC	Sandy Gravel with some clay - dusky brown (5YR2/2), maximum size gravel 2" diameter, average 1" diameter, coarse- to fine-grained sand, well graded, sub-angular, low plasticity, gravel primarily quartzite with some granite, dominant lithology sand quartz with abundant rock fragments and trace mica and dark minerals, no apparent bedding, moist, some roots present. 61% gravel, 25% sand, 3% silt, 11% clay.
			5951	2				No recovery for this interval.
		0.80 /2.00	5950	3			GW	Sandy Gravel - moderate brown (5YR4/4), as described below
			5949	4				No recovery for this interval.
		1.20 /2.00	5948	5			GW	Sandy Gravel - moderate brown (5YR4/4), maximum size gravel 2" diameter, average 1/2" diameter, coarse- to fine-grained sand, well graded, sub-angular, low plasticity, gravel primarily quartzite with some granite, dominant lithology sand rock fragments with abundant quartz and trace dark minerals, mica and pyrite, some iron staining and limonite throughout, some moderate red (5Y4/6) clay throughout, no apparent bedding, dry to moist. 57% gravel, 35% sand, 6% silt, 2% clay.
			5947	6				No recovery for this interval.
		0.80 /2.00	5946	7			GW	Sandy Gravel - moderate brown (5YR4/4), as described above, trace carbonaceous material at 6.9-7.1'
			5945	8				No recovery for this interval.
		2.00 /2.00	5944	9			GW	Sandy Gravel - moderate brown (5YR4/4), as described above. Top of bedrock at 9.1 ft.
				10			SILTY CLAYSTONE	Silty Claystone with some sand - medium light gray (N6), very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with trace dark minerals and iron

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 14.9	GROUND ELEVATION (FT):	5953.09	PROJECT NUMBER:	OU2RI
NORTH: 749888.24	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST: 2087097.91	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/13/91

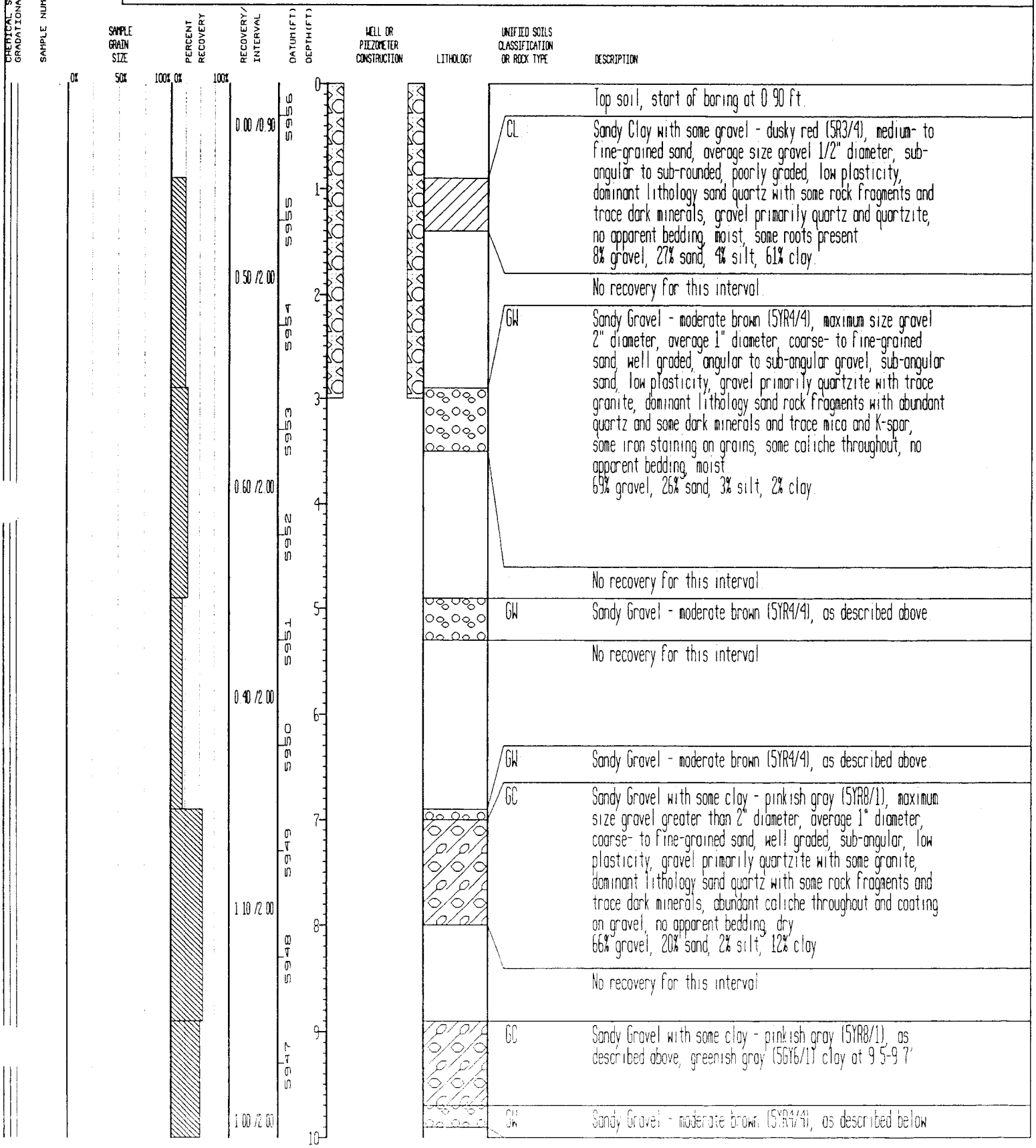
REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 5.0 FT. - 3.0 FT. BACKFILL MATERIAL: BENTONITE 14.9 FT - 11.0 FT.

LOG OF BORING NUMBER: 02891

DEPTH	CHEMICAL SAMPLE / GRADATIONAL SI	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			0% 50%	100% 0% 100%		5943	10				nodules, trace limonite throughout, some caliche inclusions throughout, no preferred bedding orientation, no apparent fractures, moist, unweathered 11% sand, 27% silt, 62% clay
		BH00018C02									VOA sample obtained from this interval
						5942	11			SILTY CLAYSTONE	Silty Claystone with some sand - medium light gray (N6), as described above
					2.00 /2.00	5941	12			CLAYEY SILTSTONE	Clayey Siltstone with some sand - pale olive (10Y6/2), very fine-grained sand, well sorted, sub-angular, approximately 15% porosity, argillaceous cement, slightly to moderately friable, dominant lithology sand clear quartz with trace dark minerals, mica and iron nodules, some iron staining on grains, trace caliche and some limonite, trace horizontal bedding at 13.6-13.9', no apparent fractures, moist, slightly weathered 69% silt, 17% clay, 14% sand
						5940	13				
					1.00 /2.00	5939	14				No recovery for this interval
						5938	15				Total depth at 14.9 ft
						5937	16				
						5936	17				
						5935	18				
						5934	19				
							20				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 57.9	GROUND ELEVATION (FT):	5956.30	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749777.43	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	02991
EAST:	2086970.30	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/25/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 35.0 FT. - 30.0 FT. BACKFILL MATERIAL: BENTONITE 57.9 FT. - 54.0 FT.



STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 57.9	GROUND ELEVATION (FT):	5956.30	PROJECT NUMBER:	OU2RI
NORTH: 749777.43	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST: 2086970.30	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/25/91

LOG OF BORING NUMBER: 02991

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 35.0 FT - 30.0 FT. BACKFILL MATERIAL: BENTONITE 57.9 FT - 54.0 FT.

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%		5946	10				No recovery for this interval.
					5945	11			GW	Sandy Gravel - moderate brown (5YR4/4), maximum size gravel greater than 2" diameter, average 1" diameter, coarse- to fine-grained sand, well graded, sub-angular sand, angular to sub-rounded gravel, low plasticity, gravel primarily quartzite with some granite, dominant lithology sand rock fragments with abundant quartz and some dark minerals and trace K-spar and mica, some iron staining throughout, no apparent bedding, moist. 64% gravel, 28% sand, 2% silt, 6% clay.
				0.90 /2.00	5944	12				No recovery for this interval
					5943	13			GW	Sandy Gravel - moderate brown (5YR4/4), as described above
				0.70 /2.00	5942	14				No recovery for this interval
									GW	Sandy Gravel - moderate brown (5YR4/4), as described above.
					5941	15				No recovery for this interval. Top of bedrock at 16.9 ft
				0.70 /2.00	5940	16			SILTY SANDSTONE	Silty Sandstone - pale olive (10Y6/2) to dusky yellow (5Y6/4), fine- to very fine-grained sand, well sorted, sub-angular to sub-rounded, approximately 20% porosity, argillaceous cement, moderately to highly friable, dominant lithology sand clear quartz with some dark minerals and trace mica, trace iron staining on grains, some limonite throughout, trace clay clasts and carbonaceous material throughout, very thin laminations of silt, clay and sand with some low angle bedding at 17.3-17.8', no apparent fractures, dry to moist, weathered. 57% sand, 39% silt, 4% clay
	BH00059WC02			1.10 /2.00	5939	17				VOA sample obtained from this interval
					5938	18				No recovery for this interval
									SILTY SANDSTONE	Silty Sandstone - pale olive (10Y6/2) to dusky yellow (5Y6/4), as described above, caliche clast at 18.9, very thin laminations of silt, clay and sand with some low angle bedding at 18.9-19.0'
				1.40 /2.00	5937	19			SANDSTONE	Sandstone - pale olive (10Y6/2), as described below, horizontal bedding at 19.5-19.7'
						20				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 57.9	GROUND ELEVATION (FT):	5956.30	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH: 749777.43	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	02991
EAST: 2086970.30	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/25/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 35.0 FT. - 30.0 FT. BACKFILL MATERIAL: BENTONITE 57.9 FT - 54.0 FT.

CHEMICAL SAMPL GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%							No recovery for this interval.
					5936	20			SANDSTONE	Sandstone - pale olive (10Y6/2), fine- to very fine-grained sand, well sorted, sub-rounded to rounded, approximately 25% porosity, argillaceous and silica cement, highly friable, dominant lithology sand clear quartz with some dark minerals, trace mica, iron nodules, some iron staining on grains, some limonite throughout, trace carbonaceous material throughout, horizontal bedding at 21.1-21.2', low angle bedding at 21.8-23.3', thin clay lamination with abundant limonite at 21.9', increase in carbonaceous material at 22.4-22.6', no apparent fractures, weathered. 91% sand, 7% silt, 2% clay.
					5935	21				
				1.80 /2.00	5934	22				
										No recovery for this interval.
									SANDSTONE	Sandstone - pale olive (10Y6/2), as described above.
										No recovery for this interval.
					5933	23			SILTY SANDSTONE	Silty Sandstone - grayish red (5R4/2) to dark yellowish orange (10YR6/6) mottling, fine-grained sand, well sorted, approximately 25% porosity, argillaceous and silica cement, highly friable, dominant lithology sand clear quartz with some K-spar and trace dark minerals, abundant iron staining on grains, abundant limonite and hematite throughout, some horizontal bedding throughout, no apparent fractures, moist, organic odor, (paleo-soil?), weathered. 78% sand, 19% silt, 3% clay.
				0.40 /2.00	5932	24				
					5931	25	01/07/92		SANDSTONE	Sandstone with some silt - dark yellowish orange (10YR6/6) to pale olive (10Y6/2), yellowish gray (5Y7/2) at 26.0-26.3', fine-grained sand, sub-rounded to rounded, well sorted, approximately 25% porosity, argillaceous cement, highly friable, dominant lithology sand clear quartz with trace dark minerals, some iron staining on grains, abundant limonite throughout, trace clay clasts and carbonaceous material throughout, no apparent bedding or fractures, clay layer at 25.7-25.8, moist, weathered. 89% sand, 9% silt, 2% clay.
				1.40 /2.00	5930	26				
							11/25/91			No recovery for this interval.
					5929	27			CLAYEY SANDSTONE	Clayey Sandstone with some silt and interbedded clay layers - light olive gray (5Y5/2) to dark yellowish orange (10YR6/6), medium- to very fine-grained sand, moderately sorted, sub-rounded to rounded, approximately 25% porosity, argillaceous cement, slightly to highly friable, dominant lithology sand clear quartz with trace dark minerals, iron nodules and mica, some iron staining on grains, abundant limonite throughout, trace clay clasts and carbonaceous material throughout, clay lamination at 26.9-27.0', horizontal bedding at 27.0-27.8', saturated, weathered. 58% sand, 13% silt, 29% clay.
	BH0006HC02			1.10 /2.00	5928	28				
						29				VOA sample obtained from this interval.
					5927					No recovery for this interval.
				1.10 /2.00		30			CLAYEY SANDSTONE	Clayey Sandstone with some silt and interbedded clay layers - light olive gray (5Y5/2) to dark yellowish orange (10YR6/6),

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 57.9	GROUND ELEVATION (FT):	5956.30	PROJECT NUMBER:	0U2RI	LOG OF BORING NUMBER:
NORTH:	749777.43	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	02991
EAST:	2086970.30	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/25/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 35.0 FT. - 30.0 FT. BACKFILL MATERIAL: BENTONITE 57.9 FT. - 54.0 FT.

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
						30				as described above, clay laminations at 28.9-29.5' and 29.6-30.0', low angle bedding at 28.9-29.5', abundant carbonaceous material at 29.3', abundant iron nodules, limonite and some hematite at 29.5-29.6' with organic odor
										No recovery for this interval
					5926	31			CLAYEY SANDSTONE	Clayey Sandstone with some silt and interbedded clay layers - light olive gray (5Y5/2) to dark yellowish orange (10YR6/6), as described above, clay laminations at 30.9-31.7', horizontal bedding at 30.9-31.7', 10 degree healed fracture with iron at 31.7'
				2.00 /2.00	5925	32			SILTY SANDSTONE	Silty Sandstone with some clay - dusky yellow (5Y6/4), fine- to very fine-grained sand, well sorted, sub-rounded, approximately 20% porosity, argillaceous cement, moderately friable, dominant lithology sand clear quartz with trace dark minerals, abundant iron staining on grains, some limonite throughout, trace carbonaceous material throughout, low bedding at 31.7-32.1', thin clay laminations at 32.4-32.5', no apparent fractures, saturated, weathered. 57% sand, 34% silt, 9% clay
					5924	33			CLAYEY SANDSTONE	Clayey Sandstone with some silt and interbedded clay layers - dusky yellow (5Y6/4) to light olive gray (5Y5/2), fine- to very fine-grained sand, well sorted, sub-rounded, approximately 18% porosity, argillaceous cement, moderately friable, dominant lithology sand clear quartz with trace dark minerals, some iron staining on grains, abundant limonite throughout, some clay clasts throughout, wood fragments at 34.0', low angle bedding throughout, clay layers at 33.0-33.1' and 33.5-33.6', no apparent fractures, moist, weathered. 61% sand, 12% silt, 27% clay
				1.70 /2.00	5923	34			SANDSTONE	Sandstone - dusky yellow (5Y6/4), as described below
					5922	35				No recovery for this interval
				2.00 /2.00	5921	36			SANDSTONE	Sandstone - dusky yellow (5Y6/4), fine- to very fine-grained sand, well sorted, rounded, approximately 30% porosity, silica cement, highly friable, dominant lithology sand clear quartz with trace dark minerals, trace hematite and carbonaceous material throughout, some limonite throughout, horizontal bedding at 35.2-36.0, no apparent fractures, saturated, slightly weathered. 91% sand, 8% silt, 1% clay
					5920	37			CLAYEY SANDSTONE	Clayey Sandstone with some silt and interbedded clay layers - dusky yellow (5Y6/4) to light olive gray (5Y5/2), very fine-grained sand, well sorted, sub-angular, approximately 15% porosity, argillaceous cement, slightly to moderately friable, dominant lithology sand clear quartz with some dark minerals and trace mica and iron nodules, some iron staining on grains, some limonite throughout, low angle bedding at 36.0-36.4', cross bedding up to 30 degrees at 36.4-36.6', clay laminations at 36.8-36.9' and 37.9-37.5', dewatering structure at 36.1-36.3', no apparent fractures, moist to saturated, weathered. 52% sand, 19% silt, 29% clay
				2.00 /2.00	5919	38				
					5918	39			SANDSTONE	Sandstone with some silt - dusky yellow (5Y6/2), fine- to very fine-grained sand, well sorted, rounded, approximately 30% porosity, silica cement, highly friable, dominant lithology
				0.00 /2.00	5917	40				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 57.9	GROUND ELEVATION (FT):	5956.30	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749777.43	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	02991
EAST:	2086970.30	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/25/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 35.0 FT. - 30.0 FT. BACKFILL MATERIAL: BENTONITE 57.9 FT. - 54.0 FT.

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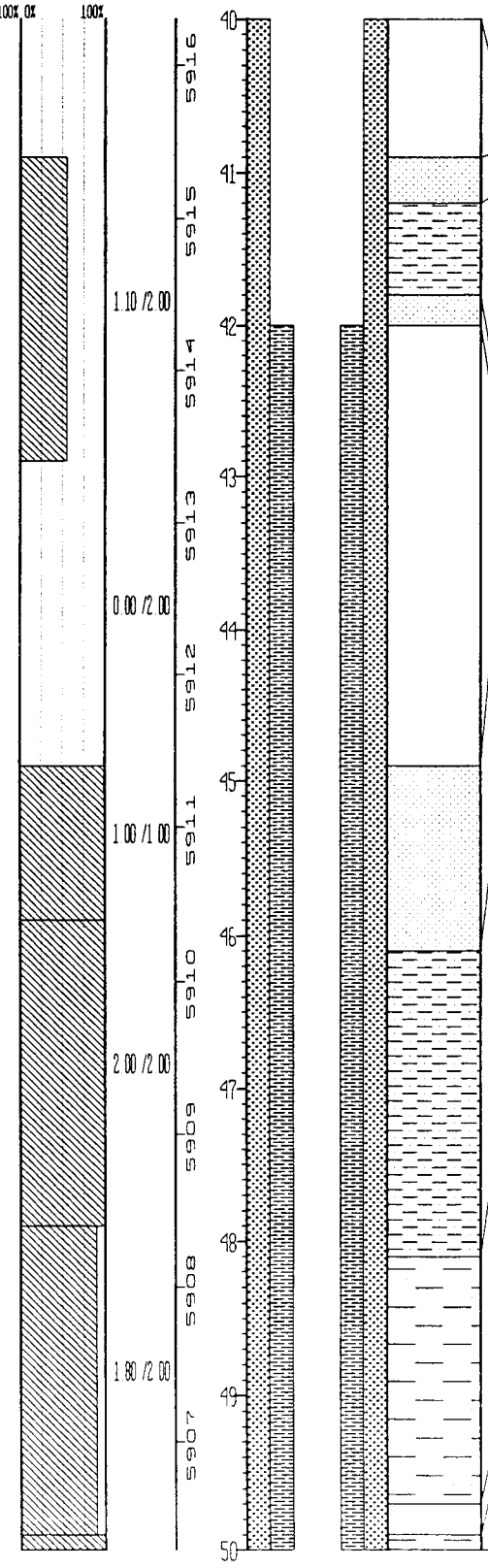
SAMPLE GRAIN SIZE (0% – 50%) | PERCENT RECOVERY (0% – 100%) | RECOVERY/INTERVAL | DATUM(FT) | DEPTH(FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	sand clear quartz with trace iron nodules and dark minerals, abundant limonite throughout, horizontal bedding at 37.4-37.6', no apparent fractures, saturated, weathered 85% sand, 13% silt, 2% clay
	No recovery for this interval
SANDSTONE	Sandstone with some silt - dusky yellow (5Y6/4), as described above.
SANDY CLAYSTONE	Sandy Claystone with some silt and interbedded sand layers - medium gray (N5) with some dark yellowish orange (10YR6/6), very fine-grained sand, well sorted, sub-angular to sub-rounded, approximately 10% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with trace dark minerals and iron nodules, some iron staining on grains, some limonite throughout, abundant limonite with low angle bedding at 41.6-41.7', no apparent fractures, moist, weathered. 31% sand, 12% silt, 57% clay
SANDSTONE	Sandstone with some silt - dusky yellow (5Y6/2), as described below.
	No recovery for this interval.
SANDSTONE	Sandstone with some silt - dusky yellow (5Y6/2), fine- to very fine-grained sand, well sorted, rounded, approximately 25% porosity, silica cement, highly friable, dominant lithology sand clear quartz with trace dark minerals, mica and iron nodules, trace limonite and carbonaceous material throughout, increase in clay content and abundant limonite with trace iron nodules at 45.4-45.9', no apparent bedding or fractures, saturated, weathered 84% sand, 14% silt, 2% clay
SANDY CLAYSTONE	Sandy Claystone with some silt and interbedded sand layers - medium gray (N5) with some dark yellowish orange (10YR6/6), fine- to very fine-grained sand, well sorted, sub-angular to sub-rounded, approximately 10% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with trace dark minerals and iron nodules, some iron staining on grains some limonite and carbonaceous material throughout, trace sand clasts throughout, some low angle bedding throughout, trace soft sediment deformation throughout, sand layers at 46.3-46.5', 46.6-46.7' and 47.8-47.9', no apparent fractures, moist/wet, slightly weathered. 26% sand, 11% silt, 63% clay
CLAYEY SANDSTONE	Clayey Sandstone with some silt and interbedded clay layers - dark yellowish orange (10YR6/6), fine- to very fine-grained sand, well sorted, sub-rounded, approximately 15% porosity, moderately friable, argillaceous cement, dominant lithology sand clear quartz with trace dark minerals and mica, trace iron staining on grains, abundant limonite and some carbonaceous throughout, plant fragments at 48.8', soft sediment deformation throughout, low angle bedding at 48.9-49.1', clay layers at 48.6', 49.3-49.4' and 49.5-49.7', no apparent fractures, moist to wet, weathered 58% sand, 11% silt, 31% clay
	No recovery for this interval
CLAYEY SANDSTONE	Clayey Sandstone with some silt and interbedded clay layers- dark yellowish orange (10YR6/6), as described above

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 57.9	GROUND ELEVATION (FT):	5956.30	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749777.43	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	02991
EAST:	2086970.30	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/25/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 35.0 FT. - 30.0 FT. BACKFILL MATERIAL: BENTONITE 57.9 FT. - 54.0 FT

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%							
				2.00/2.00	5906	50			SANDY CLAYSTONE	Sandy Claystone with some silt and interbedded sand layers - medium dark gray (N4), very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with trace dark minerals and iron nodules, trace iron staining on grains, some limonite and carbonaceous material throughout, trace iron nodules and sand clasts throughout, wood fragments at 50.3', sand layer at 50.6-50.8', no apparent bedding or fractures, moist to saturated, slightly weathered. 27% sand, 7% silt, 66% clay
					5905	51				
					5904	52			SILTY CLAYSTONE	Silty Claystone - medium dark gray (N4), as described below
				2.00/2.00	5903	53				
	RH0062002									VOA sample obtained from this interval
				1.80/2.00	5902	54			SILTY CLAYSTONE	Silty Claystone - medium dark gray (N4), very fine-grained sand, well sorted, sub-angular, approximately 5% porosity, argillaceous cement, non-friable, dominant lithology sand clear quartz with trace dark minerals, trace iron staining on grains, trace limonite throughout, some clay clasts throughout, trace horizontal bedding throughout, 45 degree fractures with slickensides, unweathered. 3% sand, 26% silt, 71% clay
					5901	55				
										No recovery for this interval
				2.00/2.00	5900	56			SILTY CLAYSTONE	Silty Claystone - medium dark gray (N4), as described above
					5899	57				
					5898	58				Total depth at 57.9 ft
					5897	59				
						60				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 56.7	GROUND ELEVATION (FT):	5952.88	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH: 749832.63	AREA: N.E. TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	03091
EAST: 2087159.68	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/18/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 33.0 FT. - 30.0 FT. BACKFILL MATERIAL: BENTONITE 56.7 FT. - 52.0 FT.

TH DEPTH | CHEMICAL SAMPLE / GRADATIONAL SA | SAMPLE NUMBER | SAMPLE GRAIN SIZE (0% 50% 100%) | PERCENT RECOVERY (0% 100%) | RECOVERY/INTERVAL | DATUM (FT) | DEPTH (FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION

RECOVERY/INTERVAL	DATUM (FT)	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			Top soil, start of boring at 0.90 ft.
0.00 /0.90	5952	GC	Sandy Gravel with some clay - dusky red (5R3/4), maximum size gravel greater than 2" diameter, average 1" diameter, coarse- to fine-grained sand, well graded, angular to sub-angular, low plasticity, gravel primarily quartzite with some granite, dominant lithology sand rock fragments with abundant quartz and some dark minerals and trace mica and K-spar, some iron staining on grains, no apparent bedding, dry, abundant roots present. 66% gravel, 21% sand, 11% clay, 2% silt.
1.50 /2.00	5951	GW	Sandy Gravel - moderate brown (5YR4/4), as described below.
	5950		No recovery for this interval
		GW	Sandy Gravel - moderate brown (5YR4/4), as described below.
1.10 /2.00	5949		No recovery for this interval
	5948	GW	Sandy Gravel - moderate brown (5YR4/4), maximum size gravel greater than 2" diameter, average 1 1/2" diameter, coarse- to fine-grained sand, well graded, angular to sub-angular, low plasticity, gravel primarily quartzite and granite with some quartz, some kaolinized coating, dominant lithology sand quartz with abundant rock fragments and some dark minerals, mica and K-spar, no apparent bedding, dry 71% gravel, 26% sand, 2% clay, 1% silt
1.50 /2.00	5947		
	5946		No recovery for this interval
		GW	Sandy Gravel - moderate brown (5YR4/4), as described above, trace limonite at 7.0'
1.20 /2.00	5945		
	5944		No recovery for this interval
		GW	Sandy Gravel - moderate brown (5YR4/4), as described above, some carbonaceous material at 9.4-9.7'
0.80 /2.00	5943		No recovery for this interval

Depth scale: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 56.7	GROUND ELEVATION (FT):	5952.88	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749832.63	AREA: N.E. TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	03091
EAST:	2087159.68	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/18/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 33.0 FT. - 30.0 FT BACKFILL MATERIAL: BENTONITE 56.7 FT. - 52.0 FT

TR DEPTH	CHEMICAL SAMPLE / GRADATIONAL S/	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			0% 50% 100%	0% 100%			10				
						5942	11			GW:	Sandy Gravel - moderate brown (5YR4/4), as described above
					0.90 /2.00	5941	12				No recovery for this interval
						5940	13			GW:	Sandy Gravel - moderate brown (5YR4/4), as described above, some carbonaceous material at 13.1-13.2'.
					1.20 /1.60	5939	14				No recovery for this interval
					0.00 /0.40	5938	15			SW:	Gravelly Sand with some silt - moderate brown (5YR4/4), coarse- to fine-grained sand, maximum size gravel 2" diameter, average 1/2" diameter, well graded, sub-angular, low plasticity, dominant lithology sand quartz with some rock fragments and trace dark minerals, mica, K-spar and pyrite, gravel primarily quartzite with some granite and quartz, trace weathered schist and arkosic arenite, some iron staining on grains, some limonite at 16.7-17.3', no apparent bedding, moist 34% gravel, 58% sand, 6% silt, 2% clay Top of bedrock at 17.3 ft
					2.00 /2.00	5937	16			SANDY SILTSTONE	Sandy Siltstone with some clay - dusky yellow (5Y6/4), very fine-grained sand, well sorted, sub-angular, approximately 15% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with some dark minerals and trace mica and iron nodules, trace iron staining on grains, some limonite throughout, trace carbonaceous material and iron nodules throughout, thin laminations of clay, sand and silt at 17.5-18.2' with some soft sediment deformation, 10 degree bedding at 18.4-18.6', moist, weathered 26% sand, 67% silt, 7% clay
						5936	17				
					2.00 /2.00	5935	18				
		BH0005240012				5934	19				VOA sample obtained from this interval
					1.00 /1.00	5933	20			SANDY SILTSTONE	Sandy Siltstone with some clay - dusky yellow (5Y6/4), as described above, 0 degree bedding at 19.3-19.4', increase in clay with cross bedding at 19.4-19.5', thin laminations of sand, silt and clay with 10 degree bedding at 21.2-21.9' and banded iron staining, 10 degree bedding controlling

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 56.7	GROUND ELEVATION (FT): 5952.88	PROJECT NUMBER: OU2RI	LOG OF BORING NUMBER:
NORTH:	749832.63	AREA: N.E. TRENCHES	CASING DIAMETER (IN): 2.0	GEOLOGIST: L.A. GUST	03091
EAST:	2087159.68	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 11/18/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 33.0 FT. - 30.0 FT. BACKFILL MATERIAL: BENTONITE 56.7 FT. - 52.0 FT.

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50%	100% 0% 100%			20				limonite at 23.6-23.9', some 90 degree fractures with manganese at 20.4-20.9', iron nodules with some carbon at 20.4-20.9', trace clay clasts at 24.3-24.9', abundant limonite and iron nodules at 25.5-25.6'
				2.00/2.00	5932	21				
					5931	22				
				2.00/2.00	5930	23				
					5929	24				
				2.00/2.00	5928	25				
					5927	26			SILTY SANDSTONE	Silty Sandstone - pale olive (10Y6/2), fine- to very fine-grained sand, moderately sorted, sub-rounded to rounded, approximately 20% porosity, argillaceous with some silica cement, moderately to highly friable, dominant lithology sand clear quartz with some dark minerals and trace mica, some iron staining on grains, trace limonite and carbonaceous material throughout, 10 degree bedding with carbonaceous material 25.6-25.9', cross bedding at 26.2-26.4', no apparent fractures, moist to wet 73% sand, 24% silt, 3% clay
				1.10/2.00	5926	27				
					5925	28				No recovery for this interval
				2.00/2.00	5924	29			SILTY SANDSTONE	Silty Sandstone - pale olive (10Y6/2), as described above, trace wood fragments at 28.5-28.6', trace iron nodule at 29.3', abundant limonite at 28.1', apparent ripples at 27.9-28.1' and 29.4-29.5', 15 degree bedding at 28.1-28.6', trace ripples at 30.6-30.8', thin clay lamination at 31.0', iron nodules at 31.8'
					5923	30				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 56.7	GROUND ELEVATION (FT):	5952.88	PROJECT NUMBER:	OU2RI
NORTH: 749832.63	AREA: N.E. TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST: 2087159.68	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/18/91

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 33.0 FT. - 30.0 FT. BACKFILL MATERIAL: BENTONITE 56.7 FT. - 52.0 FT.

LOG OF BORING NUMBER: 03091

TH EPTH

CHEMICAL SAMPLE GRADATIONAL SA

SAMPLE NUMBER

SAMPLE GRAIN SIZE (0% 50%)

PERCENT RECOVERY (100% 0% 100%)

RECOVERY/INTERVAL: 2.00/2.00; 2.00/2.00; 1.60/2.00; 2.00/2.00; 2.00/2.00

DATUM (FT): 5922, 5921, 5920, 5919, 5918, 5917, 5916, 5915, 5914, 5913

DEPTH (FT): 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40

WELL OR PIEZOMETER CONSTRUCTION: 01/07/92

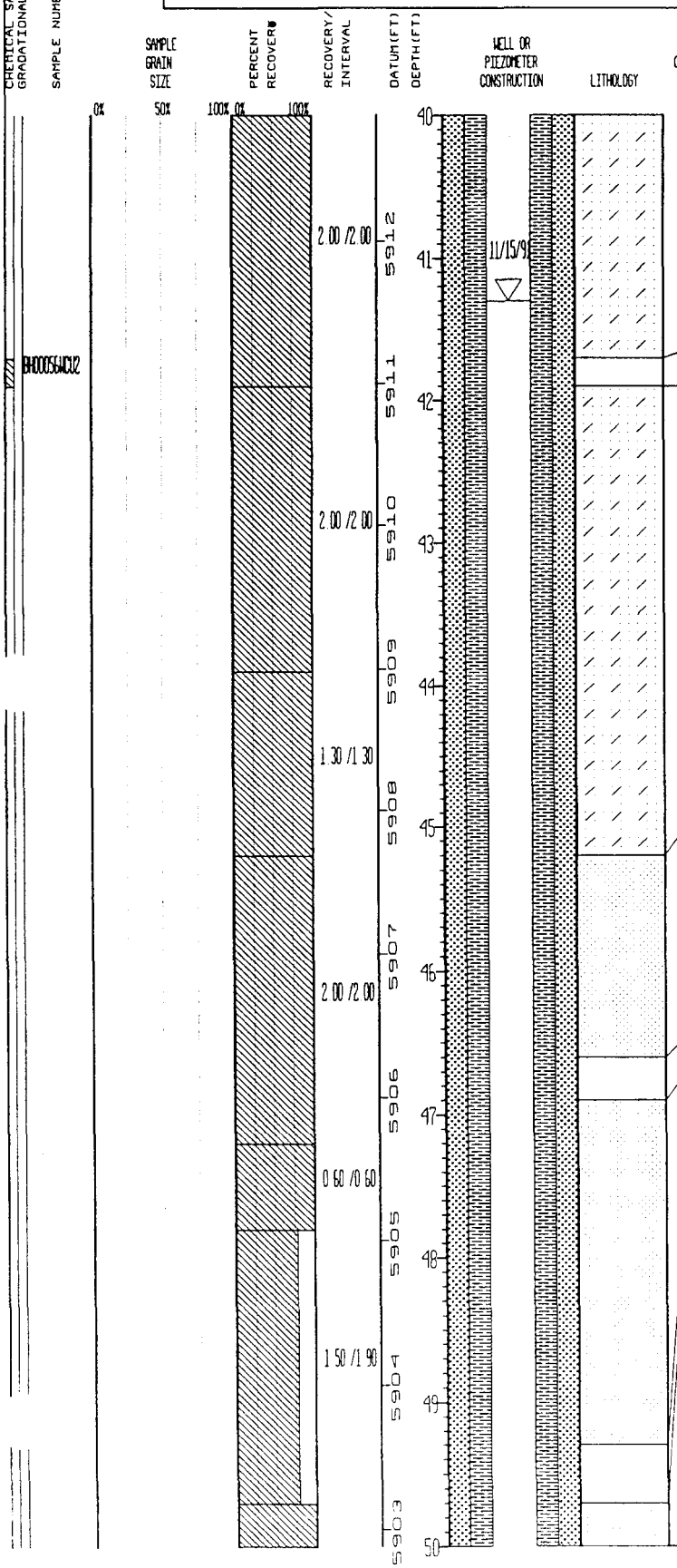
LITHOLOGY

UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
SANDSTONE	Sandstone with some silt - yellowish gray (5Y7/2), coarse- to very fine-grained sand, moderately sorted, sub-rounded to rounded, approximately 30% porosity, silica cement, highly friable, dominant lithology sand clear quartz with some dark minerals and trace iron nodules and mica, trace clay clasts throughout, 10 degree bedding throughout, no apparent fractures, wet, weathered 86% sand, 13% silt, 1% clay
	No recovery for this interval
SANDSTONE	Sandstone with some silt - yellowish gray (5Y7/2), as described above, abundant limonite at 36.0-36.5', silty sand layer at 35.9-36.0'
SANDY CLAYSTONE	Sandy Claystone with some silt - light olive gray (5Y5/2) to dark yellowish orange (10YR6/6), fine- to very fine-grained sand, well sorted, sub-angular to sub-rounded, argillaceous cement, slightly to moderately friable, dominant lithology sand clear quartz with some dark minerals and trace mica, some limonite and carbonaceous material throughout, sand layer at 37.1-37.7', soft sediment deformation at 36.5-36.8', abundant 30 degree healed fractures with iron and manganese at 37.1-37.2', blocky texture at 37.2-37.7', moist, weathered 31% sand, 16% silt, 53% clay
	VOA sample obtained from this interval
SANDY CLAYSTONE	Sandy Claystone with some silt - light olive gray (5Y5/2) to dark yellowish orange (10YR6/6), as described above, abundant limonite at 37.9-38.4', 10 degree bedding at 37.9-38.4'
SILTY SANDSTONE	Silty Sandstone with some clay - pale olive (10Y6/2), very fine-grained sand, well sorted, sub-angular, approximately 15% porosity, moderately friable, argillaceous cement, dominant

BH00054C02

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 56.7	GROUND ELEVATION (FT):	5952.88	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH: 749832.63	AREA: N.E. TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	03091
EAST: 2087159.68	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/18/91	

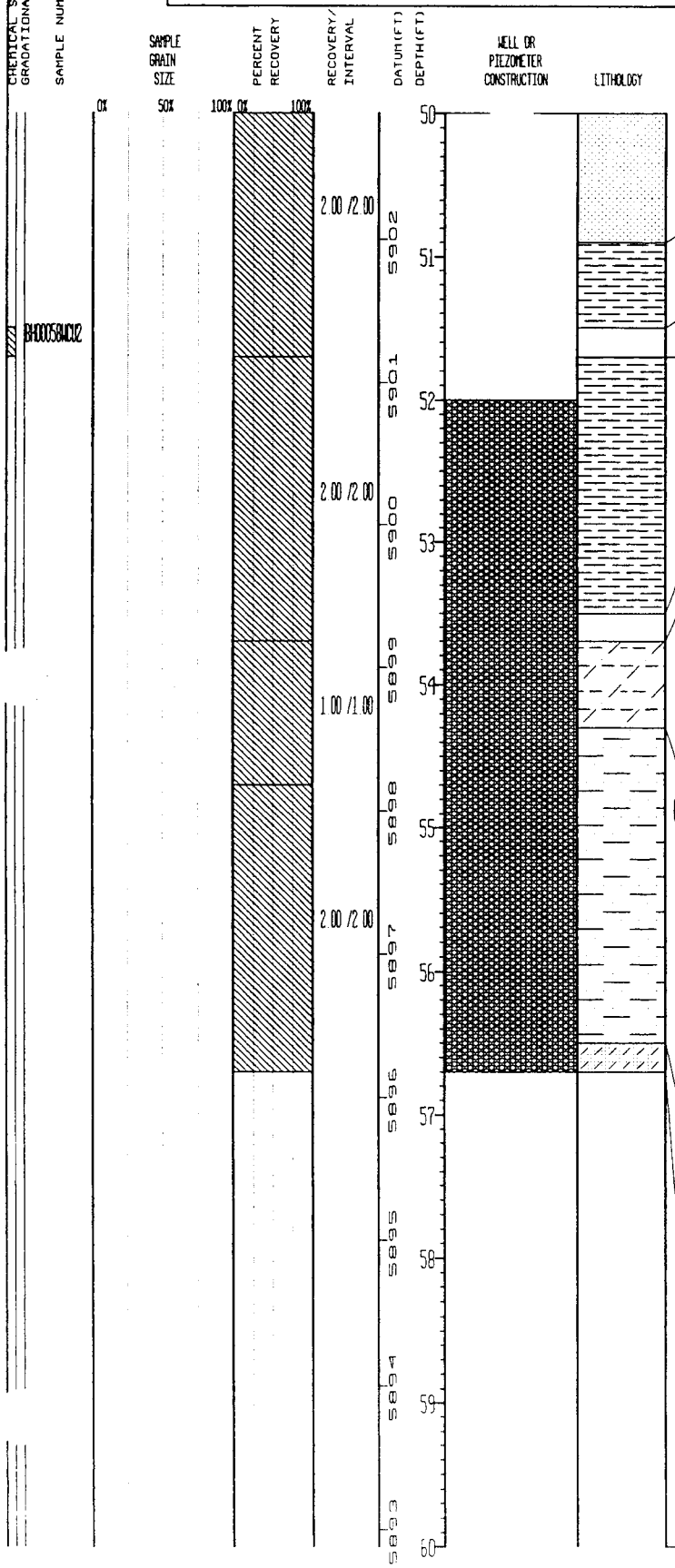
REMARKS: HOLLOW STEM AUGER BENTONITE SEAL 33.0 FT. - 30.0 FT BACKFILL MATERIAL: BENTONITE 56.7 FT. - 52.0 FT.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	lithology sand clear quartz with trace dark minerals and mica, some iron staining on grains, trace iron nodules throughout, clay layers at 38.9', 39.1-39.3' and 40.9-41.0' with trace soft sediment deformation at 38.9', trace carbonaceous material at 41.9', 10 degree bedding at 38.4-39.7', 15 degree bedding controlling limonite at 39.9-42.9', trace cross bedding at 39.3-39.5' and 39.8-39.9', no apparent fractures, saturated, weathered. 54% sand, 41% silt, 5% clay.
	VOA sample obtained from this interval.
SILTY SANDSTONE	Silty Sandstone with some clay - pale olive (10Y6/2), as described above, clay layers at 43.0-43.2', 15 degree bedding controlling limonite at 43.9-44.5', trace ripples at 44.4-44.5', trace clay clasts at 44.7'
SANDSTONE	Sandstone with some silt - pale olive (10Y6/2), fine- to very fine-grained sand, well sorted, sub-rounded to rounded, approximately 25% porosity, silica with trace argillaceous cement, highly friable, dominant lithology sand clear quartz with some dark minerals, some iron staining on grains, trace clay clasts at 46.6-47.0', 10 degree bedding at 45.2-46.6', no apparent fractures, saturated, weathered 86% sand, 13% silt, 1% clay.
	No recovery for this interval.
SANDSTONE	Sandstone with some silt - pale olive (10Y6/2), as described above, thin clay lamination at 48.6', 10 degree bedding at 47.6-48.0', trace ripples at 47.5-47.9'
	No recovery for this interval.
SANDSTONE	Sandstone with some clay and interbedded clay layers - dusky yellow (5Y4/6), fine- to very fine-grained sand, well sorted, sub-rounded, approximately 20% porosity, argillaceous with some silica cement, moderately to highly friable, dominant lithology sand clear quartz with some dark minerals and trace biotite and muscovite mica and iron nodules, some iron staining on grains, some limonite and clay clasts throughout, trace carbonaceous material and iron nodules throughout, abundant limonite at 50.9', clay layer at 49.8-49.9', very thin laminations of clay and sand at 49.9-50.1', horizontal bedding throughout, no apparent fractures, saturated to moist, weathered. 60% sand, 32% silt, 8% clay.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 56.7	GROUND ELEVATION (FT):	5952.88	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749832.63	AREA: N.E. TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	03091
EAST:	2087159.68	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/18/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 33.0 FT. - 30.0 FT. BACKFILL MATERIAL: BENTONITE 56.7 FT. - 52.0 FT.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
CLAYSTONE	Claystone with some silt - dark gray (N3), as described below, 45 degree fracture healed with iron at 51.2-51.4', some low angle fractures healed with iron at 51.4-51.5'
	VOA sample obtained from this interval
CLAYSTONE	Claystone with some silt - dark gray (N3), very fine-grained sand, well sorted, sub-angular, approximately 5% porosity, non to slightly friable, argillaceous cement, dominant lithology sand clear quartz with trace dark minerals and mica, trace limonite throughout, trace clay clasts throughout, sand clasts at 52.8', blocky, no apparent bedding, moist to wet, unweathered. 3% sand, 13% silt, 84% clay
	No recovery for this interval
SILTY CLAYSTONE	Silty Claystone - medium gray (N5), very fine-grained sand, well sorted, sub-angular, approximately 7% porosity, non to slightly friable, argillaceous cement, dominant lithology sand clear quartz with trace dark minerals, some carbonaceous material throughout, 10 degree bedding throughout, no apparent fractures, moist to wet, slightly weathered. 4% sand, 27% silt, 69% clay
CLAYEY SANDSTONE	Clayey Sandstone with some silt - dusky yellow (5Y4/6) with some dark gray (N3) mottling, fine- to very fine-grained sand, well sorted, sub-angular to sub-rounded, approximately 15% porosity, argillaceous cement, slightly to moderately friable, dominant lithology sand clear quartz with some dark minerals, trace mica, some iron staining on grains, abundant carbonaceous material throughout, some limonite throughout, iron nodule at 54.6', increase in sand at 56.2-56.4', low angle bedding controlling carbonaceous material with some soft sediment deformation at 54.5-54.7' and 55.1-55.8', cross bedding at 54.9-55.1', no apparent fractures, moist, weathered. 66% sand, 10% silt, 24% clay
SANDY SILTSTONE	Sandy Siltstone with some clay - medium gray (N3), very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with trace dark minerals and mica, some sand clasts throughout, 10 degree apparent bedding, no apparent fractures, some soft sediment deformation, moist, slightly weathered. 28% sand, 61% silt, 11% clay
	Total depth at 56.7 ft

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 26.9		GROUND ELEVATION (FT):	5950.35	PROJECT NUMBER:	EMAD
NORTH:	749881.74	AREA: NE TRENCHES		CASING DIAMETER (IN):	2.0	GEOLOGIST:	LVS
EAST:	2087440.95	LOCATOR NUMBER:	H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/07/91

LOG OF BORING NUMBER: 03191

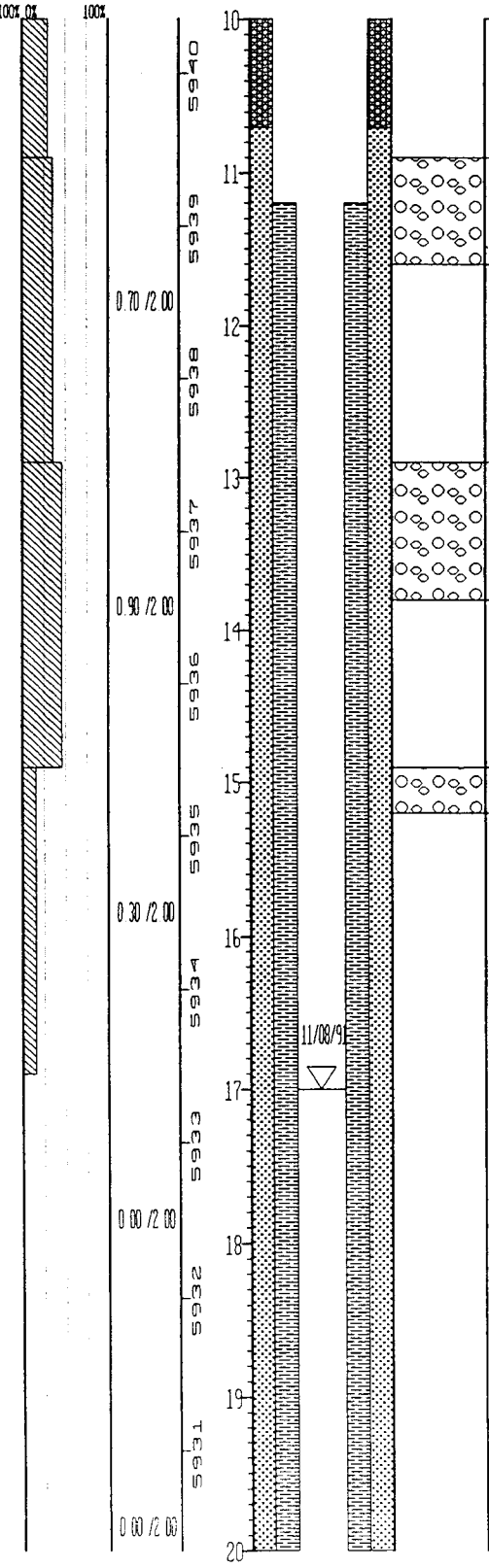
REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 10.7 FT. - 8.3 FT. BACKFILL MATERIAL: BENTONITE 27.4 FT. - 23.2 FT.

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%	0.00 /0.90	5950	0				Top soil, start of boring at 0.90 ft.
						1				No recovery for this interval.
				0.00 /1.60	5949				GP	Organic Gravel with some sand - grayish black (N2), maximum size gravel 1 1/2" diameter, average 1" diameter, coarse- to fine-grained sand, poorly graded, sub-angular to sub-rounded, low plasticity, gravel is primarily quartz, dominant lithology sand rock fragments with abundant quartz and some dark minerals and mica, trace caliche throughout, no apparent bedding, dry to moist, some roots present. 85% gravel, 12% sand, 1% silt, 2% clay
					5948	2				
						3				
				0.70 /2.40	5947					No recovery for this interval
					5946	4				
						5			GW	Sandy Gravel - pale brown (5YR5/2), maximum size gravel greater than 2" diameter, average 1" diameter, coarse- to fine-grained sand, well graded, sub-angular, gravel primarily quartzite, dominant lithology sand quartz with some rock fragments and dark minerals, trace mica, abundant caliche throughout, no apparent bedding, dry to moist. 75% gravel, 20% sand, 1% silt, 4% clay
				0.60 /2.00	5945					
					5944	6				No recovery for this interval
						7			GW	Sandy Gravel - pale brown (5YR5/2), as described above
				0.50 /2.00	5943					No recovery for this interval
					5942	8			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), maximum size gravel greater than 2" diameter, average size 1" diameter, coarse- to fine-grained sand, well graded, sub-angular, gravel primarily quartzite, with some kaolinized ground gravel, dominant lithology sand quartz with some rock fragments and dark minerals, trace mica, some iron staining on grains, no apparent bedding, dry to moist, trace pale olive (10Y6/2) clay at 8.9-9.5', trace limonite at 12.9-13.8'. 66% gravel, 30% sand, 1% silt, 3% clay
					5941	9				
				0.60 /2.00		10				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 26.9	GROUND ELEVATION (FT): 5950.35	PROJECT NUMBER: EMAD	LOG OF BORING NUMBER:	
NORTH: 749881.74	AREA: NE TRENCHES	CASING DIAMETER (IN): 2.0	GEOLOGIST: LVS	03191	
EAST: 2087440.95	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 11/07/91		

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 10.7 FT. - 8.3 FT. BACKFILL MATERIAL: BENTONITE 27.4 FT. - 23.2 FT.

CHEMICAL SAMPLE / GRADATIONAL SA / TH / EPTH / SAMPLE NUMBER / SAMPLE GRAIN SIZE (0% · 50% · 100%) / PERCENT RECOVERY (0% · 100%) / RECOVERY/INTERVAL / DATUM(FT) / DEPTH(FT) / WELL OR PIEZOMETER CONSTRUCTION / LITHOLOGY / UNIFIED SOILS CLASSIFICATION OR ROCK TYPE / DESCRIPTION



Depth (FT)	Unified Soils Classification or Rock Type	Description
10–11		No recovery for this interval.
11–12	GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above.
12–13		No recovery for this interval.
13–14	GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above.
14–15		No recovery for this interval.
15–16	GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above.
16–20		No recovery for this interval.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 26.9	GROUND ELEVATION (FT):	5950.35	PROJECT NUMBER:	EMAD	LOG OF BORING NUMBER
NORTH:	749881.74	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	LVS	03191
EAST:	2087440.95	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/07/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 10.7 FT. - 8.3 FT. BACKFILL MATERIAL: BENTONITE 27.4 FT. - 23.2 FT.

CHEMICAL SAMP / GRADATIONAL S.	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					5930	20			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above. Top of bedrock at 21.1 ft
					5929	21			SILTSTONE	Siltstone with some clay and sand - pale olive (10Y6/2), very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, argillaceous cement, moderately friable, dominant lithology sand clear quartz with some dark minerals, trace mica, K-spar and iron nodules, trace iron staining on grains, some limonite throughout, trace clay clast, trace horizontal bedding with very thin lamination of silt, clay and sand, trace 0 degree fracture healed with iron at 22.0-22.2', moist, weathered, bioturbated and vertical fractures at 21.4-21.6'. 7% sand, 81% silt, 12% clay
				2.00 /2.00	5928	22				
	BH00038AC12								SILTY SANDSTONE	Silty Sandstone with some clay - pale olive (10Y6/2) to dusky yellow (5Y6/4), as described below. VOA sample obtained from this interval.
				1.00 /1.00	5927	23			SILTY SANDSTONE	Silty Sandstone with some clay - pale olive (10Y6/2) to dusky yellow (5Y6/4), fine- to very fine-grained sand, moderately sorted, sub-angular, approximately 20% porosity, argillaceous cement, moderate to highly friable, dominant lithology sand clear quartz with some dark minerals and trace mica, iron staining on grains, trace limonite, iron nodules and clay clast throughout, some low angle bedding with thin laminations of sand, silt and clay at 23.7-24.9', trace low angle bedding at 26.7-26.9', some carbonaceous material and abundant limonite at 24.1-24.4', trace carbonaceous material at 26.0', trace healed fractures with manganese at 24.3', moist, weathered. 44% sand, 34% silt, 22% clay
				1.00 /2.00	5926	24				
					5925	25				
					5924	26				No recovery for this interval
				1.00 /1.00					SILTY SANDSTONE	Silty Sandstone with some clay - pale olive (10Y6/2) to dusky yellow (5Y6/4), as described above.
					5923	27				Total depth at 26.9 ft
					5922	28				
					5921	29				
						30				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 46.0	GROUND ELEVATION (FT):	5944.54	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	750047.25	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	03391
EAST:	2086993.72	LOCATOR NUMBER: I13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/18/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 26.9 FT. - 23.5 FT. BACKFILL MATERIAL: BENTONITE 46.1 FT. - 41.9 FT.

CHEMICAL SAMPLE / GRADATIONAL S/	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
						0				Top soil, start of boring at 0.90 ft.
				0.00 /0.90	5944	1			GC	Sandy Gravel with some clay - dusky brown (5YR2/2), gravel maximum size 1/2" diameter, average 1/4" diameter, coarse- to fine-grained sand, well graded, sub-angular, low plasticity, gravel primarily granite and quartzite, dominant lithology sand granite and quartzite rock fragments with abundant quartz and trace mica, dark minerals and K-spar, no apparent bedding, moist, abundant roots. 40% gravel, 38% sand, 4% silt, 18% clay
				1.00 /1.40	5943	2			GW	Sandy Gravel with some clay - pale yellowish orange (10YR8/6), as described below.
					5942	3				No recovery for this interval.
				1.60 /1.80	5941	4			GW	Sandy Gravel with some clay - pale yellowish orange (10YR8/6), maximum size gravel 2 1/2" diameter, average size 1/2" diameter, coarse- to fine-grained sand, well graded, sub-angular, low plasticity, gravel primarily quartzite, granite with trace schist, dominant lithology sand quartz with some dark minerals and rock fragments, trace mica, abundant caliche throughout interval and coating on gravels, no apparent bedding, dry. 65% gravel, 22% sand, 2% silt, 11% clay
					5940	5				No recovery for this interval.
									GW	Sandy Gravel with some clay - pale yellowish orange (10YR8/6), as described above.
				0.90 /2.20	5939	6				No recovery for this interval.
					5938	7			GW	Sandy Gravel - dark yellowish brown (10YR6/6), maximum size gravel 2" diameter, average 1/4" diameter, coarse- to fine-grained sand, well graded, sub-angular, low plasticity, gravel primarily quartzite and granite, dominant lithology sand quartz with some rock fragments and dark minerals, trace mica, trace caliche and iron staining throughout interval, no apparent bedding, moist. 61% gravel, 31% sand, 2% silt, 6% clay
				0.90 /2.10	5937	8				No recovery for this interval.
					5936	9			GW	Sandy Gravel - dark yellowish brown (10YR6/6), as described above.
				0.90 /1.60	5935	10				No recovery for this interval.

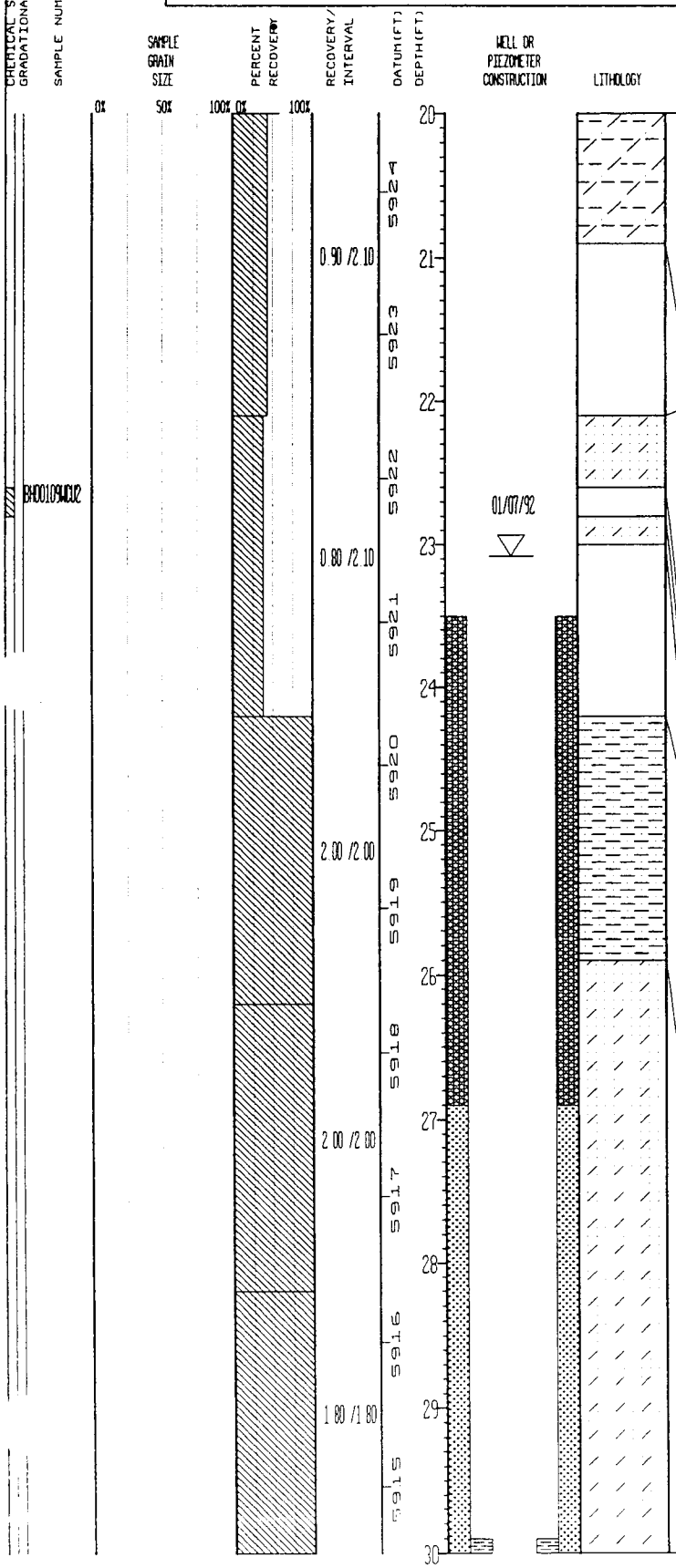
STATE PLANE COORDINATE		TOTAL DEPTH (FT): 46.0	GROUND ELEVATION (FT):	5944.54	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	750047.25	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	03391
EAST:	2086993.72	LOCATOR NUMBER: I13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/18/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 26.9 FT. - 23.5 FT. BACKFILL MATERIAL: BENTONITE 46.1 FT. - 41.9 FT.

TR EPTH	CHEMICAL SAMPL GRADATIONAL SI	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			0% 50%	100% 0% 100%			10			GW	Sandy Gravel - dark yellowish brown (10YR6/6), as described above.
						5934				SC	Gravelly Sand with some clay - pale olive (10Y4/2), coarse- to very fine-grained sand, maximum size gravel 2 1/2" diameter, average 1/4" diameter, well graded, sub-angular, low plasticity, dominant lithology sand clear quartz with some granite and quartzite rock fragments, trace dark minerals and mica, some iron staining throughout interval and trace iron staining on grains, no apparent bedding, moist, bedrock appearance. 21% gravel, 59% sand, 85% silt, 12% clay. Top of bedrock at 10.8 ft.
					0.80 /2.30		11				
						5933					
							12				No recovery for this interval.
						5932				SILTY SANDSTONE	Silty Sandstone with some clay - pale olive (10Y4/2) to dark yellowish orange (10YR6/6), as described below.
		BH00107AC02			1.00 /1.80		13				VOA sample obtained from this interval.
						5931				SILTY SANDSTONE	Silty Sandstone with some clay - pale olive (10Y4/2) to dark yellowish orange (10YR6/6), as described below, trace horizontal bedding at 13.7-13.3'.
							14				No recovery for this interval.
						5930				SILTY SANDSTONE	Silty Sandstone with some clay - pale olive (10Y4/2) to dark yellowish orange (10YR6/6), fine- to very fine-grained sand, well sorted, sub-angular, approximately 25% porosity, argillaceous cement, highly friable, dominant lithology sand clear quartz with some dark minerals and trace mica, abundant iron staining on grains, some iron staining throughout interval, trace 0-30 degree healed fractures with iron at 14.1-14.2', moist, increase in clay content 14.2-14.3', trace clay clast at 14.7'. 69% sand, 22% silt, 9% clay.
					1.10 /2.00		15				
						5929					
							16				No recovery for this interval.
						5928				SILTY SANDSTONE	Silty Sandstone with some clay - pale olive (10Y4/2) to dark yellowish orange (10YR6/6), as described above, trace 0-30 degree healed fractures with iron at 16.6-16.7', abundant iron staining at 16.6-16.7'.
					0.80 /2.20		17				No recovery for this interval.
						5927		10/21/91 ▽			
							18			SANDY SILTSTONE	Sandy Siltstone with some clay - dark yellowish orange (10YR6/6) to pale greenish yellow (10Y8/2), very fine-grained sand, well sorted, approximately 20% porosity, sub-angular, argillaceous cement, highly friable, dominant lithology sand clear quartz with some dark minerals, trace mica and green minerals, some iron staining on grains, massive, no apparent bedding or fractures, moist, iron staining throughout interval, weathered. 40% sand, 45% silt, 15% clay.
						5926					
					1.00 /1.70		19				
						5925					
							20				No recovery for this interval.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 46.0	GROUND ELEVATION (FT):	5944.54	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	750047.25	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	03391
EAST:	2086993.72	LOCATOR NUMBER: I13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/18/91	

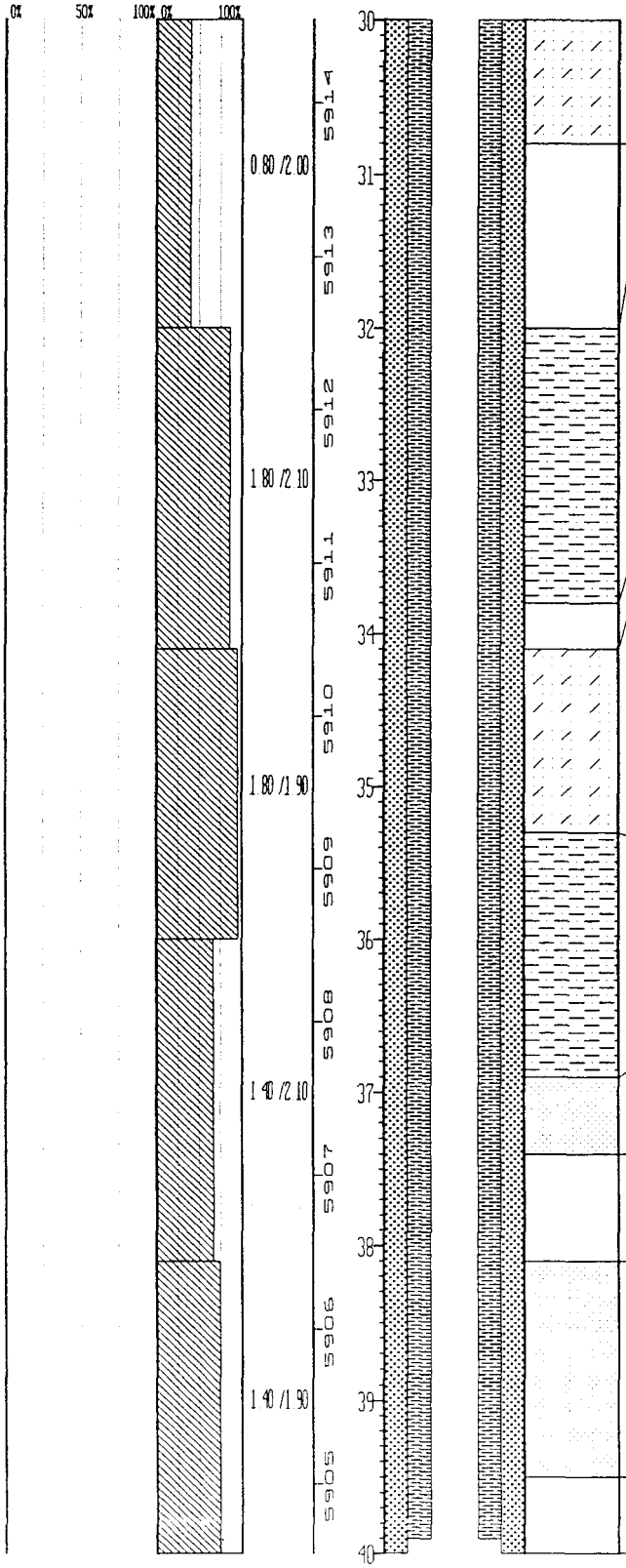
REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 26.9 FT. - 23.5 FT. BACKFILL MATERIAL: BENTONITE 46.1 FT. - 41.9 FT.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
SILTY CLAYSTONE	Silty Claystone - medium dark gray (N4) to dark yellowish orange (10YR6/6), very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, argillaceous cement, non- to slightly friable, dominant lithology sand clear quartz with trace dark minerals, some iron staining on grains, abundant iron staining throughout interval, trace carbonaceous material throughout interval, no preferred bedding orientation, highly broken throughout interval, moist, weathered. 4% sand, 24% silt, 72% clay.
	No recovery for this interval.
SILTY SANDSTONE	Silty Sandstone with some clay - pale olive (10Y6/2) to dark yellowish orange (10YR6/6), very fine-grained sand, well sorted, approximately 20% porosity, sub-angular, argillaceous cement, highly friable, dominant lithology sand clear quartz with trace dark minerals and iron nodules, abundant iron staining throughout, trace clay clast at 22.7-22.8', massive, no apparent bedding or fractures, saturated, trace carbonaceous material at 22.2-22.3', weathered. 62% sand, 24% silt, 14% clay.
	VOA sample obtained from this interval.
SILTY SANDSTONE	Silty Sandstone with some clay - pale olive (10Y6/2) to dark yellowish orange (10YR6/6), as described above.
	No recovery for this interval.
SANDY CLAYSTONE	Sandy Claystone with some silt - grayish olive (10Y4/2) to dark yellowish orange (10Y6/2), very fine-grained sand, well sorted, sub-angular, approximately 15% porosity, argillaceous cement, slightly to highly friable, dominant lithology sand clear quartz with some dark minerals and trace iron nodules and mica, trace iron staining throughout, trace carbonaceous material throughout, increase to abundant iron staining at 25.5-25.9', thin laminations of clay, silt and sand throughout interval, some horizontal bedding throughout, some soft sediment deformation throughout, no apparent fractures, saturated, weathered. 20% sand, 12% silt, 68% clay.
SILTY SANDSTONE	Silty Sandstone with thin interbedded clay - pale olive (10Y6/2), fine- to very fine-grained sand, well sorted, sub-angular, approximately 25% porosity, argillaceous cement, highly friable, dominant lithology sand clear quartz with trace dark mineral and mica, some iron staining on grains, some iron staining throughout interval, trace carbonaceous material throughout, some clay clast throughout, thin laminations of clay, silt and sand throughout, trace horizontal bedding, trace soft sediment deformation throughout, trace 0-45 degree healed fracture with iron at 26.0-27.0', some carbonaceous material at 28.1', saturated, weathered, increase in clay content at 27.0-27.3', increase in sand content at 29.2-32.0'. 78% sand, 17% silt, 5% clay.

STATE PLANE COORDINATE		TOTAL DEPTH (FT) 46.0	GROUND ELEVATION (FT)	5944.54	PROJECT NUMBER	OU2RI	LOG OF BORING NUMBER
NORTH	750047.25	AREA NE TRENCHES	CASING DIAMETER (IN)	2.0	GEOLOGIST	L.A. GUST	03391
EAST	2086993.72	LOCATOR NUMBER I13	BOREHOLE DIAMETER (IN)	10.0	DATE DRILLED	10/18/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 26.9 FT. - 23.5 FT. BACKFILL MATERIAL: BENTONITE 46.1 FT. - 41.9 FT.



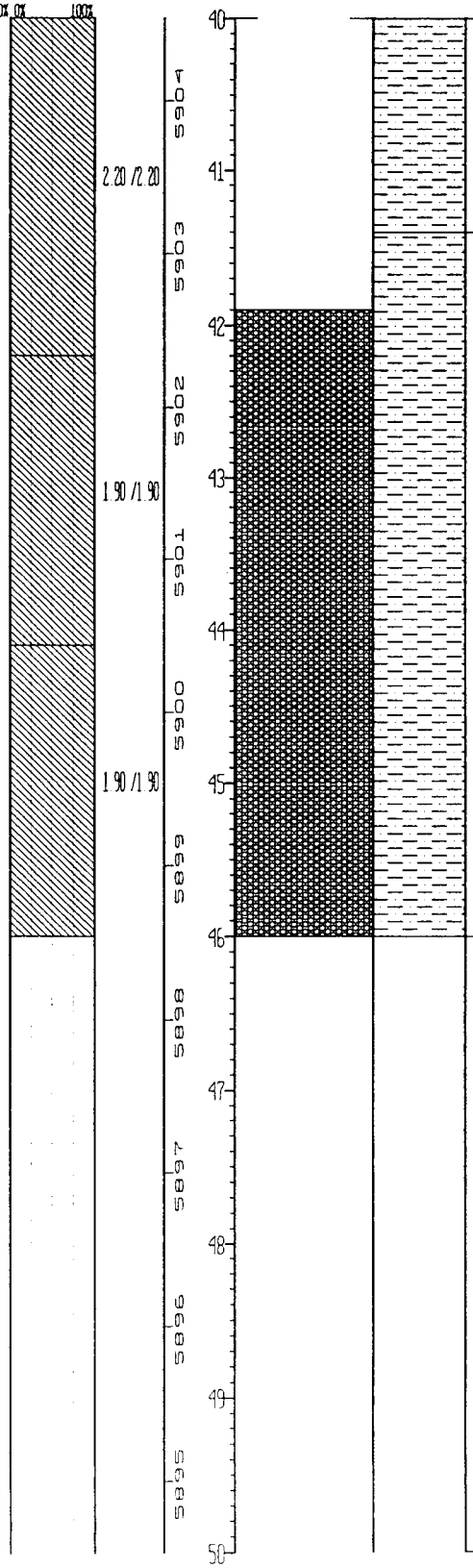
UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	No recovery for this interval.
SANDY CLAYSTONE	Sandy Claystone with some silt - olive gray (5Y3/2), very fine-grained sand, well sorted, sub-angular, approximately 15% porosity, argillaceous cement, slightly to highly friable, dominant lithology sand clear quartz with trace dark minerals and mica, trace iron staining on grains, trace iron staining throughout, some carbonaceous material throughout, some plant fragments at 32.6-32.8', thin laminations of sand, silt and clay throughout, some horizontal bedding, trace soft sediment deformation, trace clay clast in sand layer at 33.2-33.6', saturated, weathered. 23% sand, 8% silt, 69% clay
	No recovery for this interval.
SILTY SANDSTONE	Silty Sandstone with some clay - dusky yellow (5Y6/4), fine- to very fine-grained sand, well sorted, sub-angular, approximately 25% porosity, argillaceous cement, highly friable, dominant lithology sand clear quartz with some iron nodules and dark minerals and trace mica, some iron staining on grains, some iron staining throughout, trace carbonaceous material throughout, some plant fragments at 35.0', horizontal bedding throughout, no apparent fractures, saturated, weathered, some clay clast at 34.9-35.5'. 71% sand, 22% silt, 7% clay
SANDY CLAYSTONE	Sandy Claystone with some silt and interbedded sand layers - olive gray (5Y3/2), very fine-grained sand, well sorted, sub-angular, approximately 15% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with trace dark minerals and mica, soft sediment deformation, trace horizontal bedding, no apparent fractures, saturated, weathered. 26% sand, 11% silt, 63% clay
SANDSTONE	Sandstone with some silt - dusky yellow (5Y6/4), as described below, trace clay clast at 36.9-37.4'
	No recovery for this interval
SANDSTONE	Sandstone with some silt - dusky yellow (5Y6/4), medium- to very fine-grained sand, poorly sorted, sub-angular to sub-rounded, approximately 30% porosity, argillaceous cement, highly friable, dominant lithology sand clear quartz with trace dark minerals, some iron staining on grains, some iron staining throughout, massive, no apparent bedding or fractures, saturated, weathered. 85% sand, 10% silt, 5% clay
	No recovery for this interval

STATE PLANE COORDINATE		TOTAL DEPTH (FT): 46.0	GROUND ELEVATION (FT):	5944.54	PROJECT NUMBER:	OU2RI
NORTH:	750047.25	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST:	2086993.72	LOCATOR NUMBER: I13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/18/91

LOG OF BORING NUMBER: 03391

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 26.9 FT. - 23.5 FT. BACKFILL MATERIAL: BENTONITE 46.1 FT. - 41.9 FT.

CHEMICAL SAMPLE / GRADATIONAL SA / DEPTH / SAMPLE NUMBER / SAMPLE GRAIN SIZE (0% 50% 100%) / PERCENT RECOVERY (0% 100%) / RECOVERY/INTERVAL / DATUM (FT) / DEPTH (FT) / WELL OR PIEZOMETER CONSTRUCTION / LITHOLOGY / UNIFIED SOILS CLASSIFICATION OR ROCK TYPE / DESCRIPTION



SANDY CLAYSTONE: Sandy Claystone with some silt - dark gray (N3), very fine-grained sand, well sorted, sub-angular, approximately 15% porosity, argillaceous cement, slightly friable, dominant lithology sand quartz with trace dark minerals and mica, no preferred bedding orientation, no apparent fractures, moist, weathered, brecciated appearance throughout
21% sand, 8% silt, 72% clay

SANDY CLAYSTONE: Sandy Claystone with some silt - dark gray (N3) to light gray (N7), very fine-grained sand, well sorted, sub-angular, approximately 15% porosity, argillaceous cement, moderately friable, dominant lithology sand clear quartz with abundant dark minerals, some carbonaceous material throughout, thin to very thin laminations of sand, silt and clay throughout, abundant horizontal bedding, no apparent fractures, moist, sand layer with iron staining at 41.8', increase in competency downhole, unweathered, soft sediment deformation at 43.5' with some high angle cross bedding
35% sand, 20% silt, 45% clay

Total depth at 46.0 ft

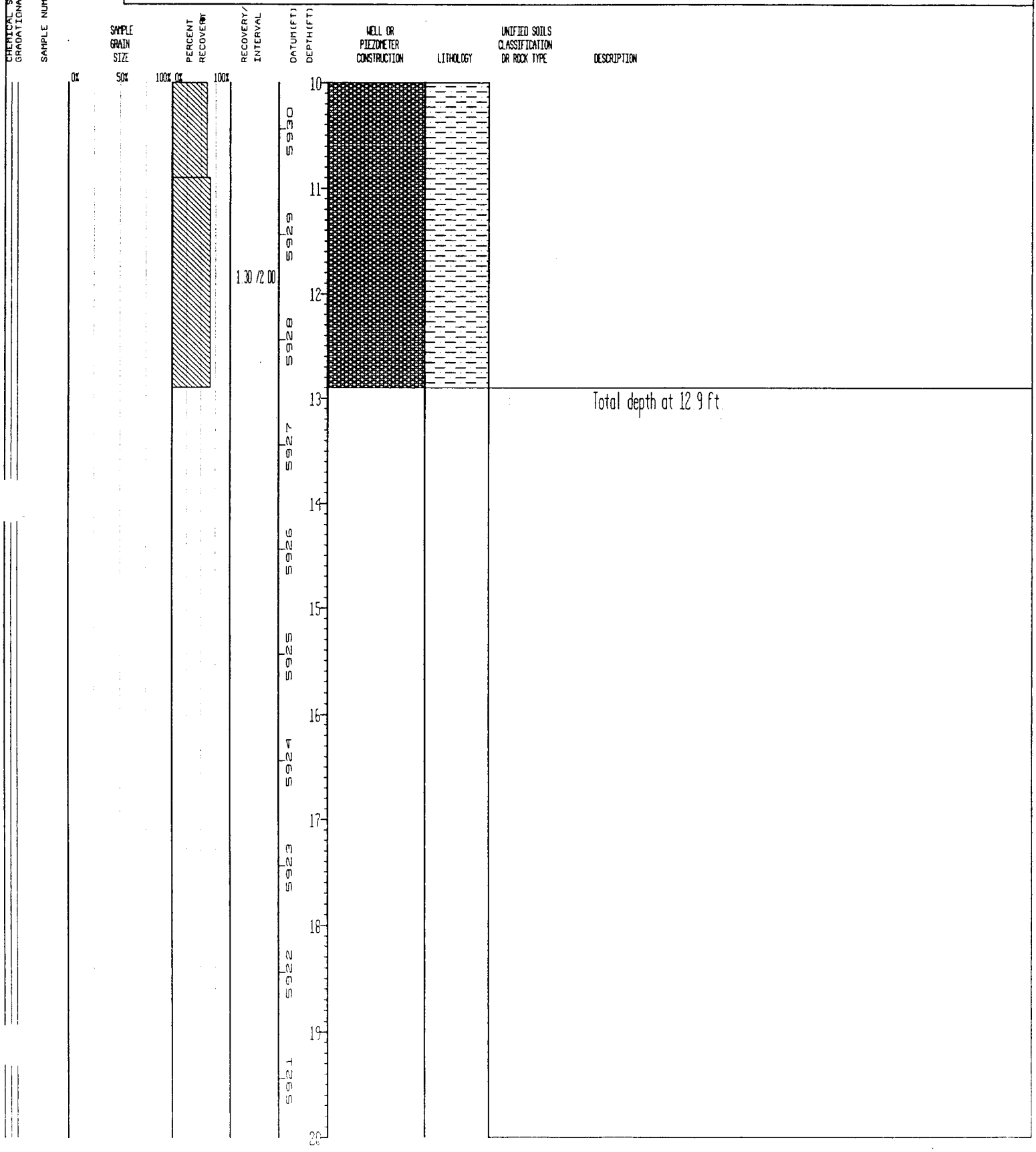
STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 12.9	GROUND ELEVATION (FT): 5940.44	PROJECT NUMBER: EMAD	LOG OF BORING NUMBER:	
NORTH: 750118.31	AREA: NE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: J.P. O'BRIEN	03491	
EAST: 2087408.09	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN): 7.0	DATE DRILLED: 11/08/91		
REMARKS: HOLLOW STEM AUGER.		BACKFILL MATERIAL: BENTONITE 12.9 FT. - 0.0 FT.			
WELL WAS ABANDONED DUE TO SHALLOW BEDROCK.					

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERED (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
				0.00 /0.90	5940	0				Top soil, start of boring at 0.90 ft.
				0.70 /2.00	5939, 5938	1, 2			GW:	Sandy Gravel - pale brown (5YR6/2), maximum size gravel 1 1/2" diameter, average size 1/2" diameter, coarse- to medium-grained sand, well graded, sub-angular, low plasticity, gravel primarily quartzite, dominant lithology sand quartz with abundant rock fragments and trace dark minerals and mica, some iron staining on grains, trace caliche, no apparent bedding, moist, some roots present. 63% gravel, 35% sand, 2% silt.
				1.00 /2.00	5937, 5936	3, 4			SC:	Clayey Sand with some silt and gravel - moderate brown (5YR4/4), maximum size gravel 1 1/2" diameter, average size 1/4" diameter, coarse- to medium-grained sand, well graded, sub-angular, dominant lithology quartz with some rock fragments, trace dark minerals and mica, some iron staining on grains, gravel primarily quartzite, abundant caliche throughout, trace limonite surrounding gravels, no apparent bedding, dry to moist, trace roots. 10% gravel, 58% sand, 13% silt, 19% clay. Top of bedrock at 4.9 ft.
	BH0004WC02			1.40 /2.00	5935, 5934	5, 6			SANDY CLAYSTONE	Sandy Claystone with some silt - pale olive (10Y6/2) to olive gray (5Y5/2), very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, argillaceous cement, non- to slightly friable, dominant lithology sand clear quartz with trace dark minerals, some limonite throughout, trace carbonaceous throughout, some clay clast throughout, abundant caliche at 4.9-11.6', caliche layer at 9.7-9.9', no preferred bedding orientation, trace 90 degree healed fractures with iron and caliche at 11.4-11.6', dry to moist, weathered, increase in competency and decrease in weathering at 11.4-12.2'. 22% sand, 20% silt, 58% clay.
				0.70 /2.00	5933, 5932	7, 8				
				1.00 /2.00	5931	9, 10				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 12.9	GROUND ELEVATION (FT): 5940.44	PROJECT NUMBER: EMAD	LOG OF BORING NUMBER:	
NORTH: 750118.31	AREA: NE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: J.P. O'BRIEN	03491	
EAST: 2087408.09	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN): 7.0	DATE DRILLED: 11/08/91		

REMARKS: HOLLOW STEM AUGER.
WELL WAS ABANDONED DUE TO SHALLOW BEDROCK.

BACKFILL MATERIAL: BENTONITE 12.9 FT. - 0.0 FT.



STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 37.7	GROUND ELEVATION (FT):	5949.02	PROJECT NUMBER:	OU2RI
NORTH:	749998.99	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST:	2087691.26	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/03/91

LOG OF BORING NUMBER: 03591

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 19.7 FT. - 16.7 FT. BACKFILL MATERIAL: BENTONITE 37.7 FT. - 32.1 FT.

CHEMICAL SAMPLE
GRADATIONAL SAMPLE
SAMPLE NUMBER
DEPTH

SAMPLE GRAIN SIZE: 0% 50% 100%
PERCENT RECOVERY: 0% 100%
RECOVERY/INTERVAL: 0.00 /0.90; 0.80 /1.90; 1.70 /1.90; 1.00 /2.00; 1.30 /2.00; 1.00 /2.00
DATUM (FT): 5949, 5948, 5947, 5946, 5945, 5944, 5943, 5942, 5941, 5940
DEPTH (FT): 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

WELL OR PIEZOMETER CONSTRUCTION

LITHOLOGY

UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	Top soil, start of boring at 0.90 ft.
GC	Organic Sandy Gravel - grayish black (N2), maximum size gravel 1" diameter, average 1/2" diameter, coarse- to fine-grained sand, well graded, sub-angular, low plasticity, gravel primarily quartzite with some granite, dominant lithology sand quartz with some rock fragments and dark minerals, trace mica and K-spar, some caliche throughout interval, no apparent bedding, dry, abundant roots present. 56% gravel, 30% sand, 2% silt, 12% clay
GW	Sandy Gravel - pale brown (5YR5/2), as described below.
	No recovery for this interval
GW	Sandy Gravel - pale brown (5YR5/2), maximum size gravel greater than 2" diameter, average size 1" diameter, coarse- to fine-grained sand, well graded, sub-angular, low plasticity, gravel primarily quartzite with some granite and trace quartz, dominant lithology sand quartz with some rock fragments and trace dark minerals and mica, some iron staining on grains, abundant caliche and caliche coating on gravels throughout interval, no apparent bedding, dry. 68% gravel, 27% sand, 1% silt, 4% clay
	No recovery for this interval
GW	Sandy Gravel - pale brown (5YR5/2), as described above, increase in moderate yellowish green (10GY6/4) clay at 7.8-9.6'
	No recovery for this interval
GW	Sandy Gravel - pale brown (5YR5/2), as described above
	No recovery for this interval

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 37.7	GROUND ELEVATION (FT):	5949.02	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749998.99	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	03591
EAST:	2087691.26	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/03/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 19.7 FT. - 16.7 FT. BACKFILL MATERIAL: BENTONITE 37.7 FT. - 32.1 FT.

CHEMICAL SAMPL / GRADATIONAL SI	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
						10				
					5938	11			GW	Sandy Gravel - pale brown (5YR5/2), as described above, increase in gravel at 10.7-11.4'
				0.70 /2.00	5937	12				No recovery for this interval.
				0.90 /1.20	5936	13			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), maximum size gravel greater than 2" diameter, average 1" diameter, coarse- to fine-grained sand, well graded, sub-angular, low plasticity, gravel primarily quartzite with some kaolinized coating, and some granite, trace weathered schist, dominant lithology sand quartz with some rock fragments and trace dark minerals and mica; some iron staining on grains, trace caliche throughout, trace limonite and carbonaceous material at 12.7-13.3', no apparent bedding, dry to moist. 63% gravel, 31% sand, 2% silt, 4% clay.
					5935	14				No recovery for this interval.
					5934	15			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, increase sand with limonite, iron staining, and carbonaceous material at 13.9-15.1'
				1.20 /2.80	5933	16				No recovery for this interval
				1.60 /2.20	5932	17			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, increase in sand content with some iron staining and trace limonite at 17.6-19.5'
					5931	18				No recovery for this interval
				0.85 /0.90	5930	19			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, increase in sand content with some iron staining at 20.8-21.0'
				1.30 /6.50		20				

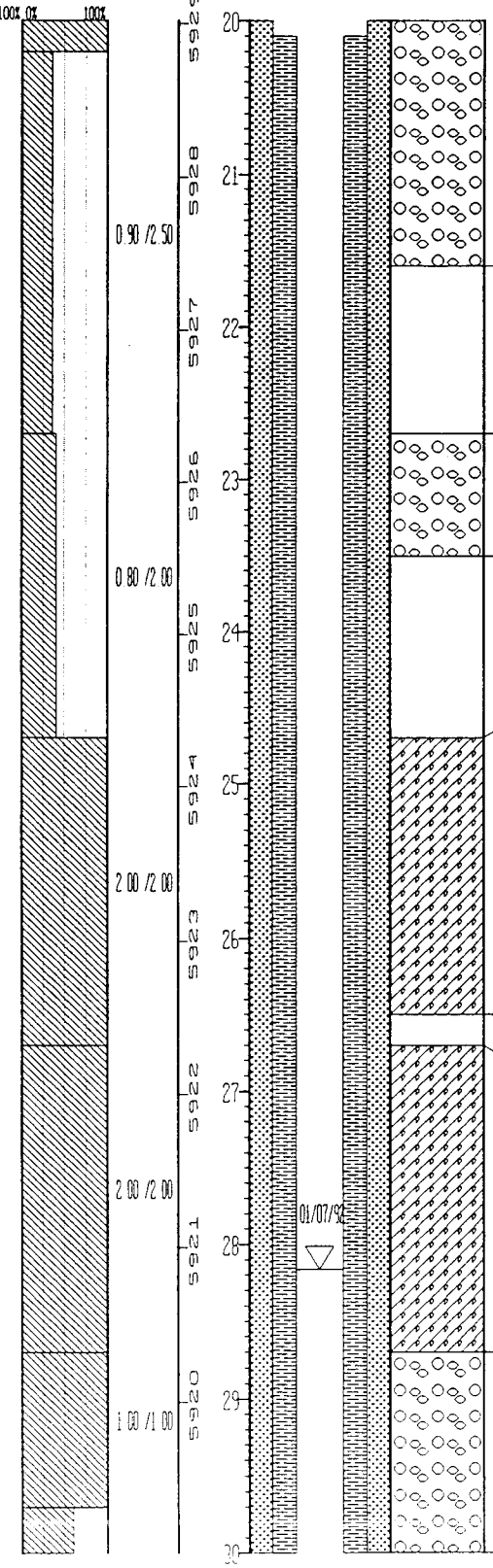
STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 37.7	GROUND ELEVATION (FT):	5949.02	PROJECT NUMBER:	OU2RI
NORTH:	749998.99	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST:	2087691.26	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/03/91

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 19.7 FT. - 16.7 FT. BACKFILL MATERIAL: BENTONITE 37.7 FT. - 32.1 FT.

LOG OF BORING NUMBER: 03591

CHEMICAL SAMPLE / GRADATIONAL SIZE / SAMPLE NUMBER / DEPTH

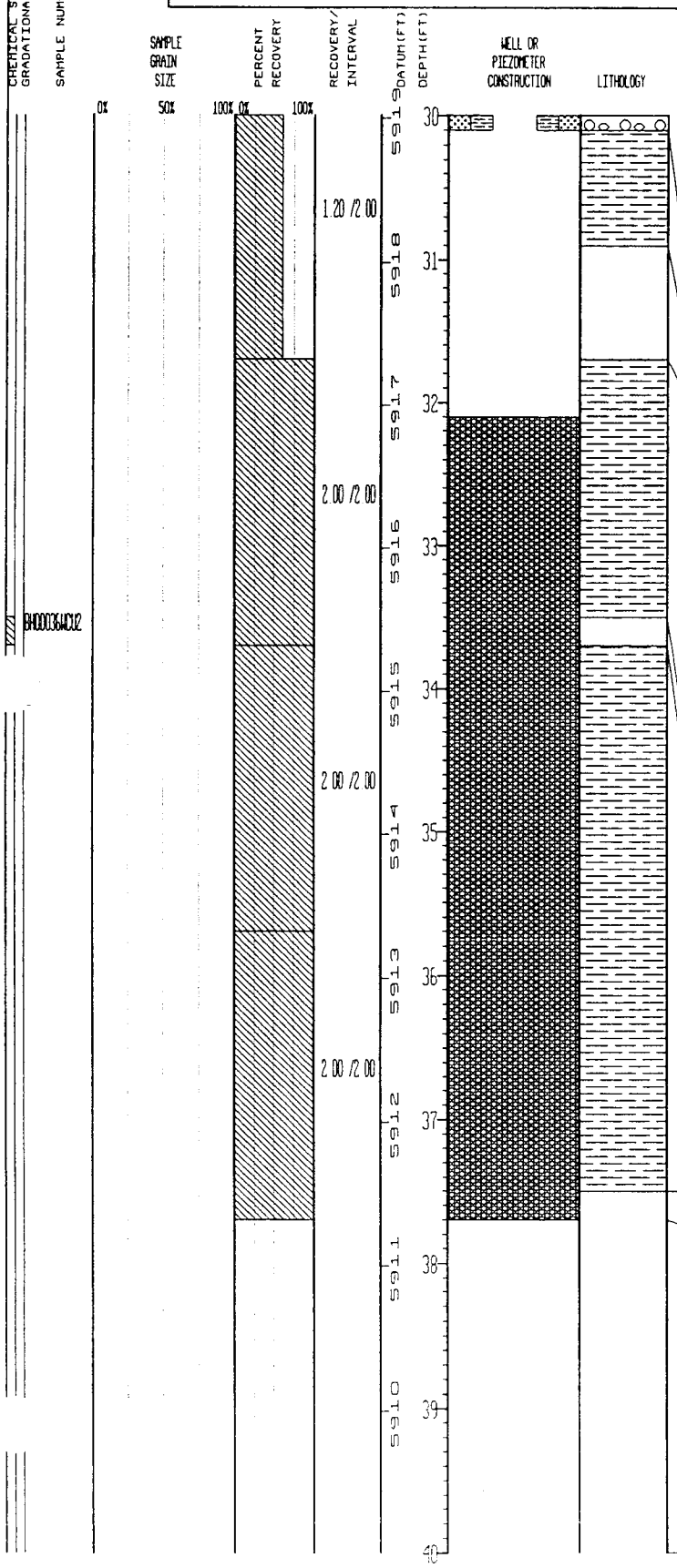
SAMPLE GRAIN SIZE (0% – 50%) | PERCENT RECOVERY (100% 0% 100%) | RECOVERY/INTERVAL | DATUM (FT) | DEPTH (FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	No recovery for this interval.
GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, increase in sand content with some iron staining and trace limonite at 22.9-23.5'
	No recovery for this interval.
SC	Clayey Sand - moderate brown (5YR4/4), coarse- to fine-grained sand, maximum size gravel 1" diameter, average 1/4" diameter, well graded, sub-angular to sub-rounded sand, sub-rounded gravel, medium plasticity, dominant lithology sand quartz with some dark minerals, trace rock fragments, mica and K-spar, trace iron staining on grains, trace carbonaceous material and iron nodules throughout, gravel primarily quartzite with some granite, no apparent bedding, moist 4% gravel, 66% sand, 2% silt, 28% clay
	No recovery for this interval.
SC	Clayey Sand - moderate brown (5YR4/4), as described above, increase to some carbonaceous material at 27.2-27.4'
GW	Sandy Gravel with some clay - light brown (5YR5/6) to pale olive (10Y6/2), maximum size gravel greater than 2" diameter, average 1/2" diameter, very coarse- to fine-grained sand, well graded, sub-angular, low plasticity, gravel primarily quartzite with some kaolinized coating, some granite and trace clay rip-up clasts, dominant lithology

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 37.7	GROUND ELEVATION (FT):	5949.02	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749998.99	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	03591
EAST:	2087691.26	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/03/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 19.7 FT. - 16.7 FT. BACKFILL MATERIAL: BENTONITE 37.7 FT. - 32.1 FT.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	sand rock fragments with abundant quartz and dark minerals, trace mica, K-spar and iron nodules, some iron staining on grains, some limonite throughout, increase in gravel at 29.7-30.1', no apparent bedding, moist. 56% gravel, 35% sand, 2% silt. Top of bedrock at 30.1 ft.
CLAYSTONE:	Claystone with some silt - pale olive (10Y6/2) to olive gray (5Y3/2) with some dark yellowish orange (10YR6/6), as described below.
	No recovery for this interval.
CLAYSTONE:	Claystone with some silt - pale olive (10Y6/2) to olive gray (5Y3/2) with some dark yellowish orange (10YR6/6), very fine-grained sand, well sorted, sub-angular, approximately 25% porosity, argillaceous cement, non- to slightly friable, dominant lithology sand clear quartz with trace mica, dark minerals and iron nodules, some limonite and trace carbonaceous material throughout, no preferred bedding orientation, moist, weathered, increase to some carbonaceous material and abundant limonite at 31.7-32.0', trace manganese staining at 32.0', some clay clasts with trace manganese staining at 32.3-37.7', brecciated appearance at 32.3-35.3' 5% sand, 7% silt, 88% clay.
	VOA sample obtained from this interval.
CLAYSTONE:	Claystone with some silt - pale olive (10Y6/2) to olive gray (5Y3/2) with some dark yellowish orange (10YR6/6), as described above, 0-30 degree healed fractures with iron at 35.4-35.6', trace manganese staining at 33.9-34.0' and 34.8-35.0', increase to abundant limonite at 35.4-35.8', trace manganese staining at 35.4-35.6', brecciated appearance at 36.0-36.7'.
	No recovery for this interval.
	Total depth at 37.7 ft.

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 46.5	GROUND ELEVATION (FT):	5932.55	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH: 750199.36	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	03691
EAST: 2087072.09	LOCATOR NUMBER: I13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/25/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 27.0 FT. - 24.0 FT. BACKFILL MATERIAL: BENTONITE 46.0 FT. - 42.0 FT.

CHEMICAL SAMP / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY / INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
										Top soil, start of boring at 0.90 ft.
				0.70 /2.70	5932, 5931	0, 1			GM	Sandy Gravel with some silt - blackish red (5R2/2), maximum gravel diameter .15', average .11', fine- to coarse-grained sand, well graded, gravel is rounded, sand is angular to sub-rounded, low plasticity, gravel is primarily quartzite, sand contains abundant carbonaceous/organic material, quartz, some rock fragments, feldspar, trace mica, no apparent bedding, moist to wet. 64% gravel, 23% sand, 8% silt, 5% clay.
						2				No recovery for this interval.
					5930	3				No recovery for this interval.
				0.00 /2.10	5929				CL	Sandy Clay with some silt - light olive gray (5Y5/2), maximum gravel diameter .13', average .04', fine-grained sand, poorly graded, angular to sub-rounded, high plasticity, sand contains abundant quartz, some rock fragments, dark minerals, caliche at 4.9-5.1', 6.9', 7.3', trace iron stain throughout, moist. 1% gravel, 25% sand, 7% silt, 67% clay.
					5928	4, 5				
				0.40 /2.00	5927					No recovery for this interval.
					5926	6				
				0.90 /0.90		7			CL	Sandy Clay with some silt - light olive gray (5Y5/2), as described above. Top of bedrock at 7.5 ft.
					5925				SANDY CLAYSTONE	Sandy Claystone with some silt - yellowish gray (5Y7/2), fine- to medium-grained, moderately sorted, sub-rounded to well rounded, approximately 10% porosity, argillaceous cement, highly friable, abundant frosted quartz, some dark minerals/rock fragments, trace iron and limonite stain, slightly moist to dry. 44% sand, 6% silt, 50% clay.
				0.60 /0.60		8				
					5924					
						9			CLAYEY SANDSTONE	Clayey Sandstone with some silt - yellowish gray (5Y7/2), as described below.
				1.00 /2.40	5923					No recovery for this interval.
						10				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 46.5	GROUND ELEVATION (FT):	5932.55	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH: 750199.36	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	03691
EAST: 2087072.09	LOCATOR NUMBER: I13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/25/92	

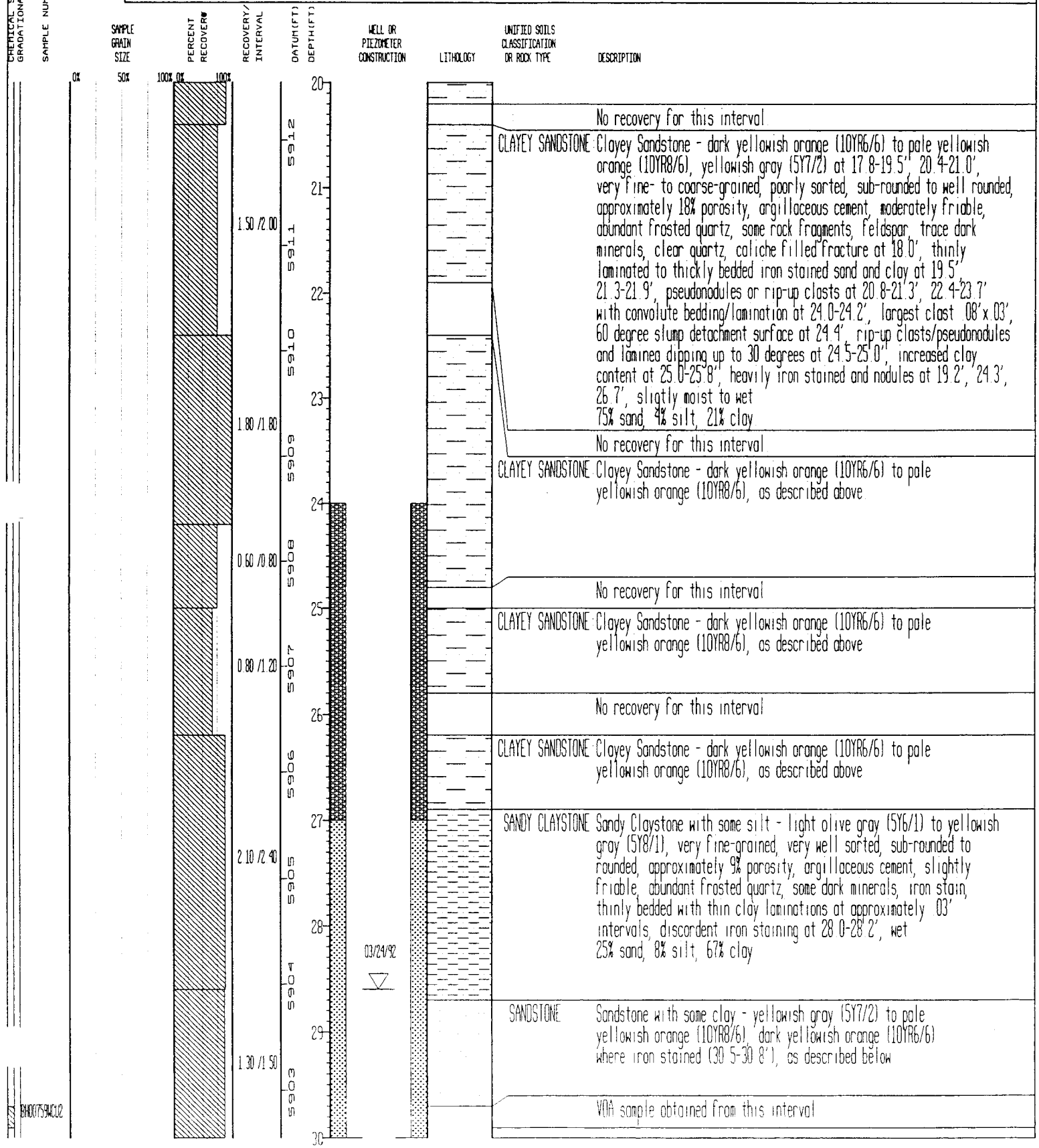
REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 27.0 FT. - 24.0 FT. BACKFILL MATERIAL: BENTONITE 46.0 FT. - 42.0 FT.

CHEMICAL SAMP/ GRADATIONAL S	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%			10			CLAYEY SANDSTONE	Clayey Sandstone with some silt - yellowish gray (5Y7/2), very fine- to medium-grained, moderately sorted, sub-rounded to well rounded, approximately 15% porosity, argillaceous cement, highly friable, abundant frosted quartz, some rock fragments/dark minerals, trace feldspar, iron stain/nodules, mica, faintly laminated at 8.3-10.7', slightly moist. 64% sand, 11% silt, 25% clay
				1.30 /2.00	5922	11				
					5921	12				No recovery for this interval.
					5920	13			CLAYEY SANDSTONE	Clayey Sandstone with some silt - pale yellowish orange (10YR8/6) to dark yellowish orange (10YR6/6), very fine- to fine-grained, well sorted, sub-angular to rounded, approximately 9% porosity, argillaceous cement, slightly to moderately friable, abundant frosted quartz, some iron stain, trace rock fragments/dark minerals, caliche nodules at 12.7-13.1', thinly to thickly laminated, .05'x.02' rounded sandstone rip-up clast at 12.4', load cast and post depositional soft sediment deformation with laminea offset .02' between continuous laminea at 13.0', clay rip-up clasts at 13.0-13.9', tabular planar cross-sets at 14.8', heavy iron stain at 13.3-13.7', 15.1', slightly moist. 43% sand, 15% silt, 42% clay
				1.20 /1.70	5919	14				
					5918	15				No recovery for this interval
				1.70 /1.70	5917				CLAYEY SANDSTONE	Clayey Sandstone with some silt - pale yellowish orange (10YR8/6) to dark yellowish orange (10YR6/6), as described above
						16			CLAYEY SANDSTONE	Clayey Sandstone with some silt - yellowish gray (5Y7/2) to light olive gray (5Y6/1), very fine- to medium-grained, moderately sorted, rounded to well rounded, approximately 14% porosity, argillaceous cement, moderately friable, abundant frosted quartz, trace rock fragments/dark minerals, mica, thinly to thickly laminated, laminea dip 10 degrees at 15.7-16.1', large clay load cast at 16.4', laminea dip at 16 degrees at 16.0', iron stain and nodules at 17.0', unit coarsens up, slightly moist. 63% sand, 8% silt, 29% clay
				0.90 /1.70	5916	17				
					5915					No recovery for this interval
				0.50 /0.70		18			CLAYEY SANDSTONE	Clayey Sandstone - dark yellowish orange (10YR6/6) to pale yellowish orange (10YR8/6), as described below.
					5914					No recovery for this interval
				1.70 /1.90	5913	19			CLAYEY SANDSTONE	Clayey Sandstone - dark yellowish orange (10YR6/6) to pale yellowish orange (10YR8/6), as described below.
						20				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 46.5	GROUND ELEVATION (FT):	5932.55	PROJECT NUMBER:	OU2RI
NORTH: 750199.36	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST: 2087072.09	LOCATOR NUMBER: I13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/25/92

LOG OF BORING NUMBER: 03691

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 27.0 FT. - 24.0 FT. BACKFILL MATERIAL: BENTONITE 46.0 FT. - 42.0 FT.



No recovery for this interval

CLAYEY SANDSTONE: Clayey Sandstone - dark yellowish orange (10YR6/6) to pale yellowish orange (10YR8/6), yellowish gray (5Y7/2) at 17.8-19.5', 20.4-21.0', very fine- to coarse-grained, poorly sorted, sub-rounded to well rounded, approximately 18% porosity, argillaceous cement, moderately friable, abundant frosted quartz, some rock fragments, feldspar, trace dark minerals, clear quartz, caliche filled fracture at 18.0', thinly laminated to thickly bedded iron stained sand and clay at 19.5', 21.3-21.9', pseudonodules or rip-up clasts at 20.8-21.3', 22.4-23.7' with convolute bedding/lamination at 24.0-24.2', largest clast .08'x.03', 60 degree slump detachment surface at 24.4', rip-up clasts/pseudonodules and laminea dipping up to 30 degrees at 24.5-25.0', increased clay content at 25.0-25.8', heavily iron stained and nodules at 19.2', 24.3', 26.7', sligtly moist to wet
75% sand, 4% silt, 21% clay

No recovery for this interval

CLAYEY SANDSTONE: Clayey Sandstone - dark yellowish orange (10YR6/6) to pale yellowish orange (10YR8/6), as described above

No recovery for this interval

CLAYEY SANDSTONE: Clayey Sandstone - dark yellowish orange (10YR6/6) to pale yellowish orange (10YR8/6), as described above

No recovery for this interval

CLAYEY SANDSTONE: Clayey Sandstone - dark yellowish orange (10YR6/6) to pale yellowish orange (10YR8/6), as described above

SANDY CLAYSTONE: Sandy Claystone with some silt - light olive gray (5Y6/1) to yellowish gray (5Y8/1), very fine-grained, very well sorted, sub-rounded to rounded, approximately 9% porosity, argillaceous cement, slightly friable, abundant frosted quartz, some dark minerals, iron stain, thinly bedded with thin clay laminations at approximately .03' intervals, discordent iron staining at 28.0-28.2', wet
25% sand, 8% silt, 67% clay

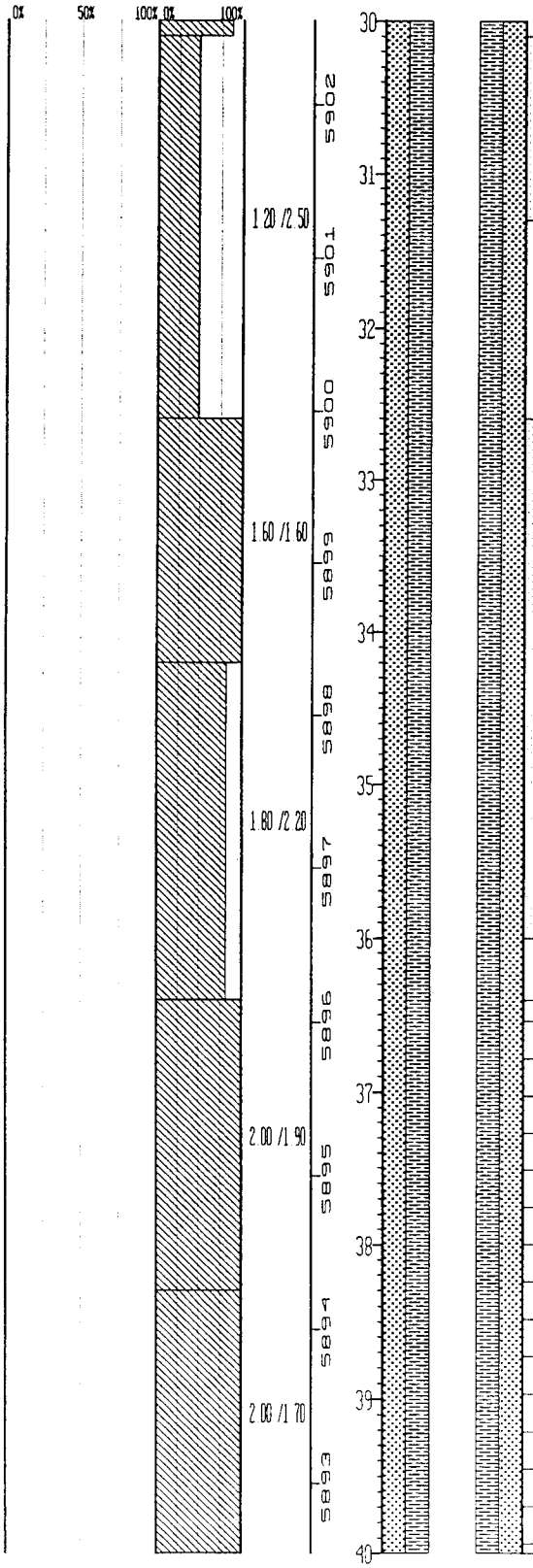
SANDSTONE: Sandstone with some clay - yellowish gray (5Y7/2) to pale yellowish orange (10YR8/6), dark yellowish orange (10YR6/6) where iron stained (30.5-30.8'), as described below

VOA sample obtained from this interval

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 46.5	GROUND ELEVATION (FT):	5932.55	PROJECT NUMBER:	OU2RI
NORTH:	750199.36	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST:	2087072.09	LOCATOR NUMBER: I13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/25/92

LOG OF BORING NUMBER: 03691

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 27.0 FT. - 24.0 FT. BACKFILL MATERIAL: BENTONITE 46.0 FT. - 42.0 FT.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	No recovery for this interval.
SANDSTONE	Sandstone with some clay - yellowish gray (5Y7/2) to pale yellowish orange (10YR8/6), dark yellowish orange (10YR6/6) where iron stained (30.5-30.8'), as described below.
	No recovery for this interval.
SANDSTONE	Sandstone with some clay - yellowish gray (5Y7/2) to pale yellowish orange (10YR8/6), dark yellowish orange (10YR6/6) where iron stained (30.5-30.8'), very fine- to coarse-grained, poorly sorted, rounded to well rounded, approximately 20% porosity, highly friable, abundant frosted quartz, some rock fragments, trace dark minerals, clear quartz, feldspar, kaolinized feldspar, iron nodules, thinly to thickly laminated with convolute laminations at 29.3-29.7', clay rip-up clast at 30.2', > 1'x.08' iron coated clay rip-up clast at 31.1', saturated unconsolidated sand at 32.6', 34.0', 34.2-35.8', .14'x.09' clay rip-up clast at 35.0', saturated. 80% sand, 49% silt, 16% clay
	No recovery for this interval
CLAYEY SANDSTONE	Clayey Sandstone with some silt - moderate yellowish brown (10YR5/4) to pale yellowish orange (10YR8/6), very fine- to medium-grained, moderately sorted, rounded to well rounded, approximately 12% porosity, highly friable, abundant frosted quartz, some dark minerals, rock fragments, trace clear quartz, mica, iron stain, limonite stain, .25'x.07' flame structure at 37.4', angular .1'x.05' gray clay rip-up clasts pseudonodules and chaotic bedding at 36.4-37.4', possible large slump-soft sediment deformation at 37.4-40.0', unit generally coarsens up, wet 52% sand, 18% silt, 30% clay

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 46.5	GROUND ELEVATION (FT):	5932.55	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH: 750199.36	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	03691
EAST: 2087072.09	LOCATOR NUMBER: I13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/25/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 27.0 FT. - 24.0 FT. BACKFILL MATERIAL: BENTONITE 46.0 FT. - 42.0 FT.

CHEMICAL SAMP / GRADATIONAL S.	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	BH00761WC02			0.60 /0.60	5892	40			SANDY CLAYSTONE	Sandy Claystone with some silt - light gray (N7) to medium dark gray (N4), as described above.
										VOA sample obtained from this interval.
				1.70 /1.50	5891	41			SANDY CLAYSTONE	Sandy Claystone with some silt - light gray (N7) to medium dark gray (N4), very fine- to medium-grained, moderately to well sorted, sub-rounded to rounded, approximately 6% porosity, slightly friable, abundant frosted quartz, some dark minerals, trace clear quartz, some iron staining at 40.0-40.4', small iron nodule at 44.6', mottled to thinly-thickly laminated, light gray clayey sandstone (rip-up?) clasts at 40.6-41.8', clay beds at 42.4', 42.8', unit generally fines up, moist 27% sand, 8% silt, 65% clay.
					5890	42				
				1.20 /2.50	5889	43				No recovery for this interval
					5888	44				
				1.20 /1.90	5887	45			SANDY CLAYSTONE	Sandy Claystone with some silt - light gray (N7) to medium dark gray (N4), as described above.
					5886	46				
					5885	47				Total depth at 46.5 ft
					5884	48				
					5883	49				
						50				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 54.1	GROUND ELEVATION (FT):	5936.80	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	750206.13	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	03791
EAST:	2087182.78	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/14/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 34.4 FT. - 30.6 FT. CAVING IN THE BORING CAUSED THE BACKFILL FROM 54.1 - 50.3 FT.

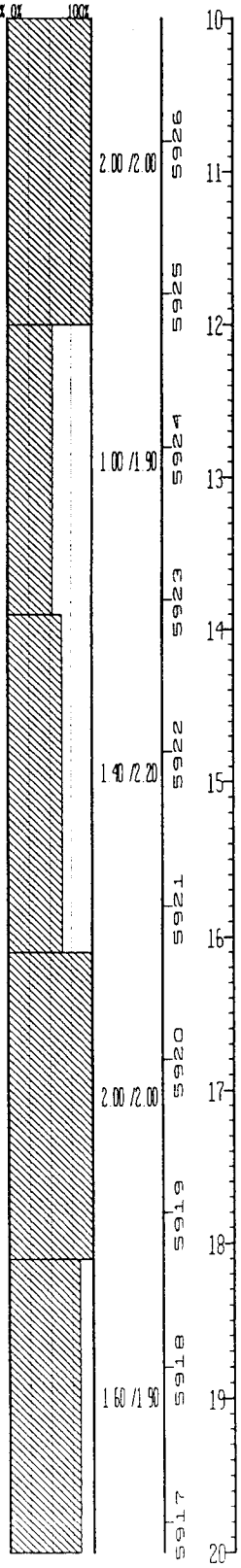
CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
										Top soil, start of boring at 0.90 ft.
				0.00 /0.90	5936	0			GW	Organic Sandy Gravel - dark gray (N3), maximum size gravel 2" diameter, average size 1/2", coarse- to fine-grained sand, well graded, sub-rounded, low plasticity, gravel primarily granite and quartzite, dominant lithology sand quartz with some rock fragments and dark minerals, trace mica, abundant caliche throughout interval and coating on gravel, no apparent bedding, moist, abundant root present. 63% gravel, 26% sand, 4% silt, 7% clay
				1.10 /1.10	5935	1			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), maximum gravel size greater than 2 1/2" diameter, average size 1", coarse- to fine-grained sand, well graded, sub-angular, low plasticity, gravel primarily granite and quartzite with some quartz, dominant lithology sand quartz with some rock fragments and dark minerals trace mica and K-spar, trace iron staining on grains, abundant caliche throughout interval and coating on gravels, no apparent bedding, moist, some roots present. 66% gravel, 24% sand, 1% silt, 9% clay
				1.20 /2.00	5934	2				No recovery for this interval.
					5933	3			CL	Caliche Sandy Clay - white (N9), coarse- to fine-grained sand, maximum gravel size 1/2" diameter, poorly graded, sub-angular, medium plasticity, dominant lithology sand quartz with some rock fragments and mica, gravel primarily quartzite, abundant caliche throughout interval and coating on gravel, no apparent bedding, moist. 4% gravel, 21% sand, 3% silt, 72% clay. Top of bedrock at 4.9 ft.
				1.80 /1.90	5932	4			CLAYSTONE	Claystone with some sand and silt - pale olive (10Y6/2), as described below.
					5931	5				VOA sample obtained from this interval.
	BH00098C02				5930	6			CLAYSTONE	Claystone with some sand and silt - pale olive (10Y6/2), very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, argillaceous cement, non-friable, dominant lithology sand clear quartz with trace mica, trace iron staining throughout interval, trace carbonaceous material throughout interval, abundant caliche throughout interval, no preferred bedding orientation, no apparent fractures, moist, trace roots present, decrease in caliche at 6.3-7.1', increase in banded iron staining at 6.6-7.1', trace horizontal bedding at 7.0-7.1, weathered. 10% sand, 7% silt, 83% clay
				1.60 /2.10	5929	7			CLAYSTONE	Claystone with some silt - light olive brown (5Y5/6) to grayish olive (10Y4/2), as described below, banded iron staining at 7.1-7.3, horizontal bedding at 7.1-7.3.
					5928	8				No recovery for this interval.
				1.50 /2.00	5927	9			CLAYSTONE	Claystone with some silt - light olive brown (5Y5/6) to grayish olive (10Y4/2), very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, argillaceous cement, non-friable, dominant lithology sand quartz with some dark minerals, trace carbonaceous material throughout, some iron staining throughout, trace limonite nodules at 8.4-9.0', abundant caliche layer at 8.4' and some throughout, micro-fractures with limonite and manganese staining at 8.0-8.4', moist, weathered. 3% sand, 7% silt, 90% clay
						10				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 54.1	GROUND ELEVATION (FT):	5936.80	PROJECT NUMBER:	OU2RI
NORTH:	750206.13	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST:	2087182.78	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/14/91

LOG OF BORING NUMBER: 03791

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 34.4 FT. - 30.6 FT. CAVING IN THE BORING CAUSED THE BACKFILL FROM 54.1 - 50.3 FT.

CHEMICAL SAMPLE | GRADATIONAL SI | DEPTH | SAMPLE NUMBER | SAMPLE GRAIN SIZE (0% 50% 100%) | PERCENT RECOVERY (0% 100%) | RECOVERY/INTERVAL | DATUM (FT) | DEPTH (FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION



Unified Soils Classification or Rock Type	Description
	No recovery for this interval
SILTY CLAYSTONE	Silty Claystone - pale olive (10Y6/2), very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, argillaceous cement, non-friable, dominant lithology sand clear quartz with some dark minerals and trace mica, trace iron staining on grains, caliche clasts throughout interval, trace carbonaceous material, iron and manganese staining throughout interval, some horizontal bedding at 10.0-11.8', vertical healed fractures with manganese at 10.7-11.0', moist, weathered. 3% sand, 24% silt, 73% clay
CLAYEY SANDSTONE	Clayey Sandstone with some silt - pale olive (10Y6/2), as described below
	No recovery for this interval
CLAYEY SANDSTONE	Clayey Sandstone with some silt - pale olive (10Y6/2), as described below, some horizontal and convolute bedding at 14.7-15.0'
	No recovery for this interval
CLAYEY SANDSTONE	Clayey Sandstone with some silt - pale olive (10Y6/2), fine- to very fine-grained sand, well sorted, sub-angular to sub-rounded, approximately 25% porosity, argillaceous with some silica cement, highly friable, dominant lithology sand clear quartz with some milky quartz, and dark minerals, trace rose quartz K-spar and mica, some iron staining on grains, trace iron staining and carbonaceous material throughout interval, little competency throughout interval, massive, some horizontal and convolute bedding at 17.1-18.1', no apparent fractures, moist, trace clay clasts at 16.5', weathered. 73% sand, 12% silt, 15% clay
	No recovery for this interval

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 54.1	GROUND ELEVATION (FT):	5936.80	PROJECT NUMBER:	OU2RI
NORTH:	750206.13	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST:	2087182.78	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/14/91

LOG OF BORING NUMBER: 03791

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 34.4 FT. - 30.6 FT. CAVING IN THE BORING CAUSED THE BACKFILL FROM 54.1 - 50.3 FT.

DEPTH	CHEMICAL SAMPT / GRADATIONAL SI	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			0% 50%	100% 0% 100%			20			CLAYEY SANDSTONE	Clayey Sandstone with some silt - pale olive (10Y6/2), as described above, trace limonite nodules at 20.0-20.1, some horizontal and convolute bedding at 20.8-21.4', manganese staining at 21.4', increase in clay content at 20.0-20.6', increase in clay content at 21.3-21.6'.
					1.60 /2.10	5916	21				
						5915	22			CLAYEY SANDSTONE	Clayey Sandstone with some silt - pale olive (10Y6/2), very fine-grained sand, well sorted, sub-angular, approximately 15% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with some dark minerals and trace mica and K-spar, trace iron staining on grains, trace iron staining throughout, trace carbonaceous and iron nodules, horizontal bedding at 22.7-22.9' with thin clay laminations, horizontal to convoluted bedding at 22.9-24.1' and 24.1-27.1', vertical healed fractures with iron and manganese at 26.9-27.1', trace clay clasts at 22.9-24.1', moist, weathered, manganese layer at 26.7' 48% sand, 21% silt, 31% clay
					1.80 /1.90	5914	23				
						5913	24				
					2.00 /2.00	5912	25				
						5911	26			CLAYEY SANDSTONE	Clayey Sandstone with some silt - dark yellowish orange (10Y6/6), fine- to very fine-grained sand, well sorted, sub-angular, approximately 20% porosity, argillaceous cement, moderately friable, dominant lithology sand clear quartz with some dark minerals and mica and trace K-spar, abundant iron staining on grains, trace horizontal fractures with iron and manganese, no apparent bedding, moist to very moist, weathered 60% sand, 16% silt, 24% clay
					1.20 /1.40	5910	27	10/10/91 ▽			
					0.20 /0.70	5909	28				No recovery for this interval
						5908	29			SANDSTONE	Sandstone with some silt - pale olive (10Y6/2) to dark yellowish orange (10YR6/6), as described below, increase in iron staining at 28.7-29.0', some hemitite staining at 28.5-28.7', trace clay clasts at 28.8'
		..J010GAC02			1.40 /1.90						VOA sample obtained from this interval
						5907	30			SANDSTONE	Sandstone with some silt - pale olive (10Y6/2) to dark yellowish orange (10YR6/6), as described below
											No recovery for this interval

STATE PLANE COORDINATE		TOTAL DEPTH (FT): 54.1	GROUND ELEVATION (FT):	5936.80	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	750206.13	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	03791
EAST:	2087182.78	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/14/91	

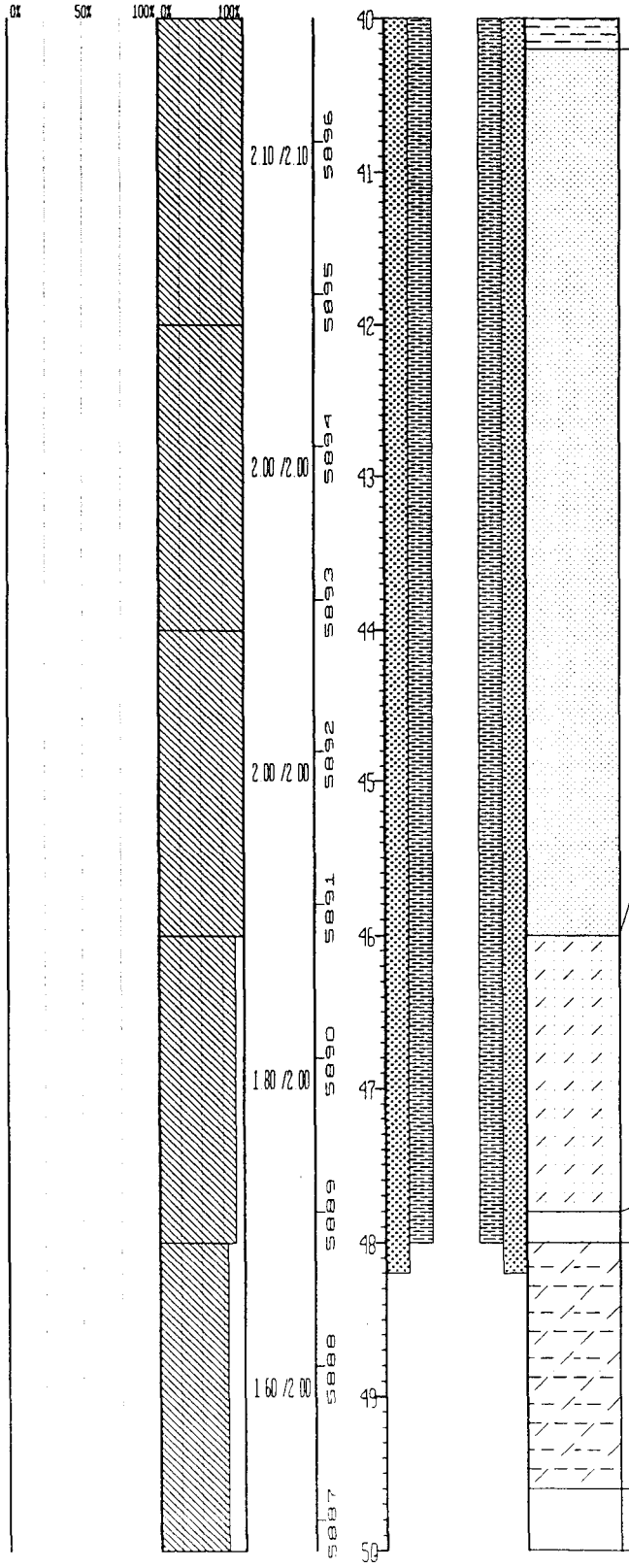
REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 34.4 FT. - 30.6 FT. CAVING IN THE BORING CAUSED THE BACKFILL FROM 54.1 - 50.3 FT.

CHEMICAL SAMPLE / GRADATIONAL SI	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%			30			SANDSTONE	Sandstone with some silt - pale olive (10Y6/2) to dark yellowish orange (10YR6/6), as described below, increase in iron staining at 30.5-31.0', increase in clay at 30.0-30.2', 45 degree fracture at 30.5'.
				1.00 /2.10	5906	31				No recovery for this interval.
					5905	32			SANDSTONE	Sandstone with some silt - pale olive (10Y6/2) to dark yellowish orange (10YR6/6), fine- to very fine-grained sand, well sorted, sub-round, approximately 25% porosity, argillaceous cement, highly friable, dominant lithology sand clear quartz with some dark minerals, trace limonite nodules, mica and K-spar, trace iron staining on grains, massive with localized bedding, fracture localized, saturated, weathered, increase in iron staining and iron nodules at 32.8-35.6, horizontal fracture at 33.1', horizontal bedding and vertical healed fractures with iron at 34.3-34.9', abundant limonite at 34.9-35.1', increase in clay content at 34.6-34.7' and 35.1-35.2', trace clay clasts at 35.4-35.6' 82% sand, 14% silt, 4% clay
				1.20 /1.20	5904	33				
					5903	34				
				2.00 /2.70	5902	35				
					5901	36	01/07/92			No recovery for this interval
				2.00 /2.00	5900	37			SANDSTONE	Sandstone with some silt - pale olive (10Y6/2) to dark yellowish orange (10YR6/6), as described above, increase in competency at 36.7-37.3', some vertical to 45 degree healed fractures with iron at 36.7-37.3', increase in limonite nodules at 36.7-37.3'
					5899	38			SANDY CLAYSTONE	Sandy Claystone with some silt and interbedded sandstone laminations - dark gray (N3) to dark yellowish orange (10YR6/6), very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with trace dark minerals and mica, trace iron staining on grains, abundant iron staining throughout, trace carbonaceous material and manganese staining throughout, clay clasts throughout, abundant convoluted bedding throughout, some vertical healed fractures with iron throughout and localized at 39.7-39.9', sand laminations with clay clasts at 37.7-38.0', 38.7-38.8' and 39.5-39.6', sand laminations increase to fine-grained sand, moist to very moist, weathered
				1.90 /1.90	5898	39				
					5897	40				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 54.1	GROUND ELEVATION (FT):	5936.80	PROJECT NUMBER:	OU2RI
NORTH: 750206.13	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST: 2087182.78	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/14/91

LOG OF BORING NUMBER: 03791

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 34.4 FT. - 30.6 FT. CAVING IN THE BORING CAUSED THE BACKFILL FROM 54.1 - 50.3 FT



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	29% sand, 14% silt, 57% clay
SANDSTONE	Sandstone - pale olive (10Y6/2) to dark yellowish orange (10YR6/6), medium- to fine-grained sand, moderately sorted, sub-rounded, approxmately 25% porosity, argillaceous cement, highly friable, dominant lithology sand clear quartz with trace dark minerals and limonite nodules, trace iron staining on grains, localized beding and fractures, saturated, weathered, abundant iron staining at 40.2-40.6', some vertical healed fractures with iron at 40.4-40.6', trace horizontal bedding at 43.6-43.8', increase iron staining at 43.6-44.0', increase in competency and trace horizontal bedding at 44.7-46.0', increase in clay content and clay clasts at 45.1-46.0'. 93% sand, 3% silt, 4% clay
SILTY SANDSTONE	Silty Sandstone with some clay - dark gray (N3), very fine-grained sand, well sorted, sub-angular, approximately 20% porosity, argillaceous cement, slightly to highly friable, dominant lithology sand clear quartz with some dark minerals and trace mica, abundant iron staining on grains, some iron staining and manganese staining throughout interval, trace carbonaceous material, trace horizontal bedding and very thin clay laminations, trace convoluted bedding throughout, dewatering channel structure with iron staining at 46.4-48.0', no apparent fractures, trace soft sediment deformation, silt layer at 47.6-47.8', saturated, unweathered 43% sand, 40% silt, 17% clay
	No recovery for this interval
SILTY CLAYSTONE	Silty Claystone with abundant sand - dark gray (N3), as described below, 45 degree fracture healed with manganese at 49.0-49.3', increase in silt at 49.4-49.6'
	No recovery for this interval

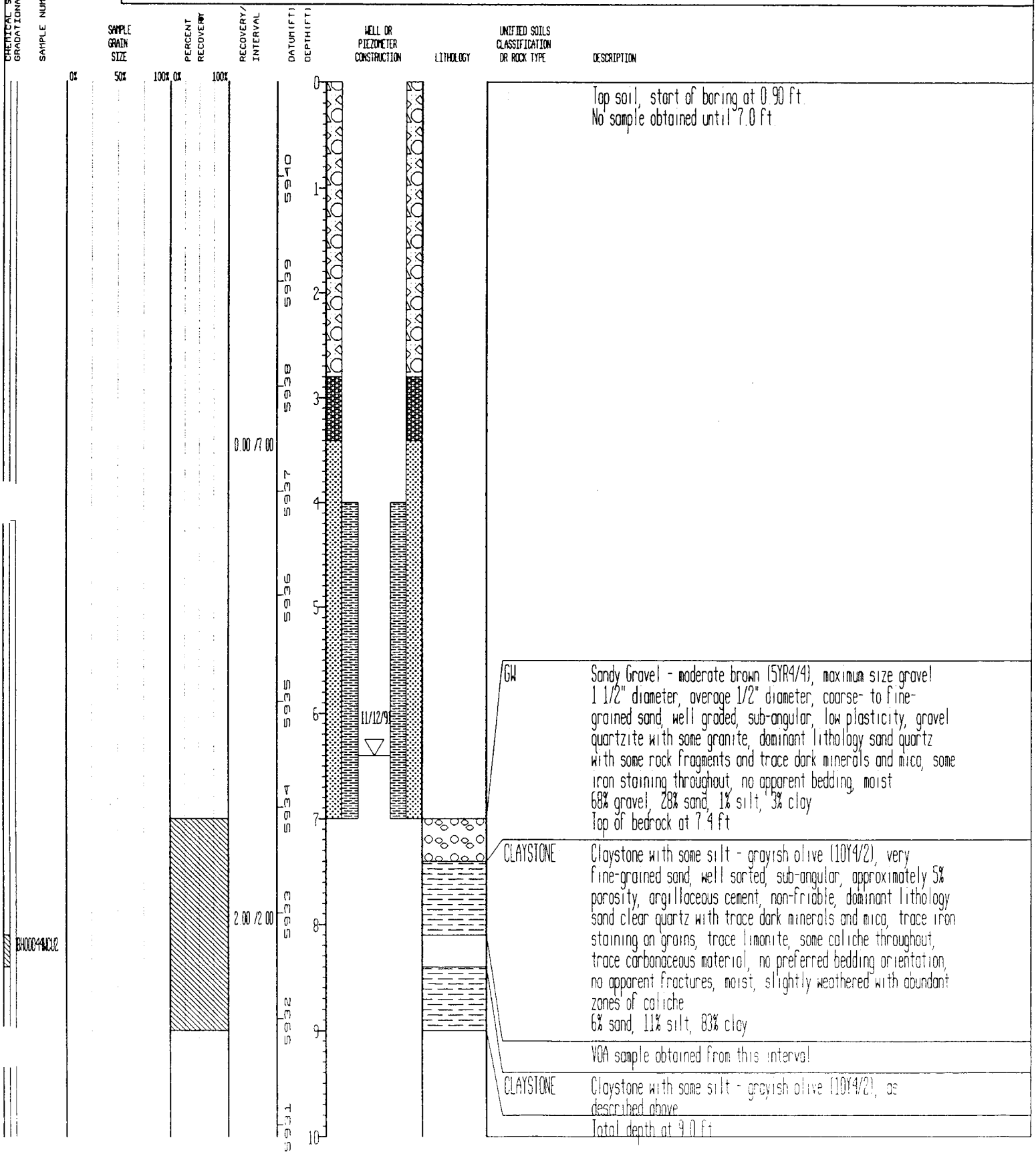
STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 54.1	GROUND ELEVATION (FT):	5936.80	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	750206.13	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	03791
EAST:	2087182.78	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/14/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 34.4 FT. - 30.6 FT. CAVING IN THE BORING CAUSED THE BACKFILL FROM 54.1 - 50.3 FT.

CHEMICAL SAMPL / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50%	100% 0% 100%			50			SILTY CLAYSTONE	Silty Claystone with abundant sand - dark gray (N3), as described below, 45 degree fracture healed with manganese at 51.2-51.5', increase in sand at 51.5-51.7'.
				2.00 /2.00	5886	51				
					5885					VOA sample obtained from this interval.
	BH00101WC02					52			SILTY CLAYSTONE	Silty Claystone with abundant sand - dark gray (N3), very fine-grained sand, well sorted, sub-angular, approximately 15% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with some dark minerals and trace mica, some horizontal bedding throughout, localized fractures, trace carbonaceous material throughout, moist, slightly weathered, lignitic coal layer at 53.4-53.5' 25% sand, 30% silt, 45% clay
				2.10 /2.10	5884	53				
					5883	54				Total depth at 54.1 ft.
					5882	55				
					5881	56				
					5880	57				
					5879	58				
					5878	59				
					5877	60				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 9.0	GROUND ELEVATION (FT):	5940.89	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH: 750181.52	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	03891
EAST: 2087615.30	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/11/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 3.4 FT. - 1.4 FT. BACKFILL MATERIAL: BENTONITE 9.0 FT. - 7.0 FT.
CUTTING SAMPLE IN JARS FROM 0.90 - 7.0 FT.



STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 50.0	GROUND ELEVATION (FT):	5935.17	PROJECT NUMBER:	OU2/RI
NORTH:	750400.91	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST:	2088449.23	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/20/92

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 25.0 FT. - 21.5 FT. BACKFILL MATERIAL: BENTONITE 50.4 FT. - 39.4 FT.

LOG OF BORING NUMBER: 03991

CHEMICAL SAMPL / GRADATIONAL S/	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					5935	0				Top soil, start of boring at 0.90 ft.
				0.50 /3.00	5934	1			ML	Gravelly Silt with some clay and sand - blackish red (5R2/2), maximum gravel diameter .11', average .04', fine- to coarse-grained sand, well graded, gravel is sub-rounded, sand is angular to rounded, low plasticity, gravel is primarily quartzite with some weathered granite at 1.3', sand contains abundant carbonaceous/organic material, quartz, some rock fragments, feldspar, trace mica, iron stain, slightly moist. 28% gravel, 17% sand, 33% silt, 22% clay
					5933	2				No recovery for this interval.
					5932	3				No recovery for this interval
				0.00 /2.00	5931	4				
					5930	5			GM	Silty Gravel with some sand and clay - light brown (5YR5/6), maximum gravel diameter > .25', average .08', fine- to coarse-grained sand, well graded, gravel is fractured or rounded, sand is angular to sub-rounded, low plasticity, gravel is primarily quartzite with some pink feldspathoid at 13.1', sand contains abundant quartz, some rock fragments, feldspar, dark minerals, trace kaolinized feldspar, mica, slightly moist. 57% gravel, 13% sand, 19% silt, 11% clay
				0.30 /2.00	5929	6				No recovery for this interval.
					5928	7			GM	Silty Gravel with some sand and clay - light brown (5YR5/6), as described above
				0.60 /2.00	5927	8				No recovery for this interval.
					5926	9			GM	Silty Gravel with some sand and clay - light brown (5YR5/6), as described above
				0.20 /2.00		10				No recovery for this interval

STATE PLANE COORDINATE		TOTAL DEPTH (FT): 50.0	GROUND ELEVATION (FT):	5935.17	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER
NORTH:	750400.91	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	03991
EAST:	2088449.23	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/20/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 25.0 FT. - 21.5 FT. BACKFILL MATERIAL: BENTONITE 50.4 FT. - 39.4 FT.

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%	0.20 /2.00	5925	10				
					5924	11			GM	Silty Gravel with some sand and clay - light brown (5YR5/6), as described above.
				0.80 /2.00	5923	12				No recovery for this interval.
					5922	13			GM	Silty Gravel with some sand and clay - light brown (5YR5/6), as described above.
				0.80 /2.00	5921	14				No recovery for this interval.
					5920	15			GM	Silty Gravel with some sand and clay - light brown (5YR5/6), as described above.
				0.50 /2.00	5919	16				No recovery for this interval.
					5918	17			GM	Silty Gravel with some sand and clay - light brown (5YR5/6), as described above.
				2.00 /2.00	5917	18			CL	Silty Clay with some sand - moderate reddish brown (10R4/6), maximum gravel diameter .17', average .03', fine- to medium-grained sand, poorly graded, sub-angular to rounded, moderate plasticity, gravel is primarily quartzite with some light olive gray (5Y5/2) .03'x.01' silty clay clasts, sand contains abundant quartz, some feldspar, rock fragments, iron stain, trace kaolinized feldspar, dark minerals, mica, carbonaceous material at 18.4-19.1', coarsens up, slightly moist. 1% gravel, 22% sand, 31% silt, 46% clay
					5916	19			GC	Clayey Gravel with some silt and sand - light brown (5YR5/6), as described below.
				1.00 /2.00		20				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 50.0	GROUND ELEVATION (FT):	5935.17	PROJECT NUMBER:	002/RI	LOG OF BORING NUMBER:
NORTH: 750400.91	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	03991
EAST: 2088449.23	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/20/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 25.0 FT. - 21.5 FT. BACKFILL MATERIAL: BENTONITE 50.4 FT. - 39.4 FT.

CHEMICAL SAMPL
GRADATIONAL SA
DEPTH
SAMPLE NUMBER

SAMPLE GRAIN SIZE: 0% 50% 100%

PERCENT RECOVERY: 0% 100%

RECOVERY/INTERVAL: 1.00 /2.00; 0.90 /2.00; 0.80 /1.00; 2.00 /2.00; 0.70 /3.00; 0.40 /2.00

DATUM(FT): 5915, 5914, 5913, 5912, 5911, 5910, 5909, 5908, 5907, 5906

DEPTH(FT): 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30

WELL OR PIEZOMETER CONSTRUCTION

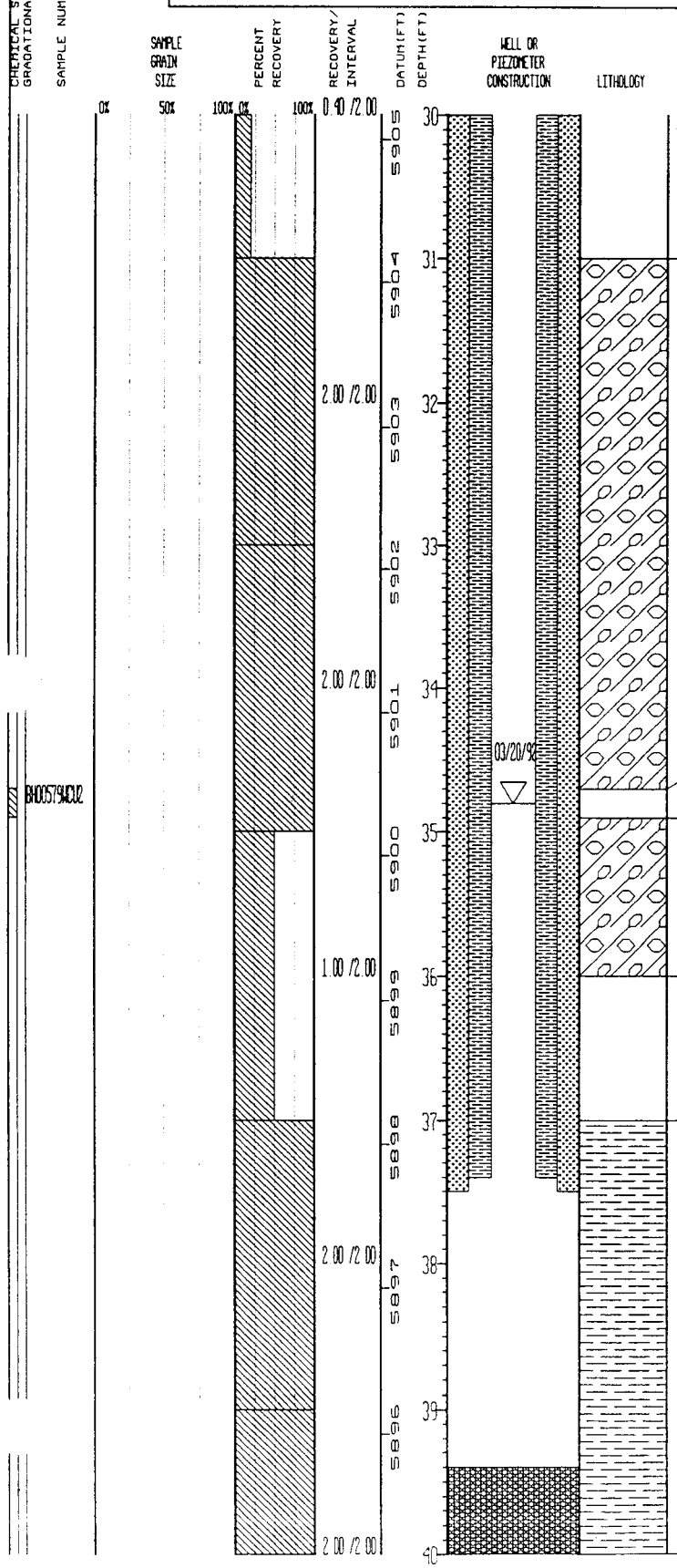
LITHOLOGY

UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	No recovery for this interval.
GC:	Clayey Gravel with some silt and sand - light brown (5YR5/6), maximum gravel diameter .21', average .07', fine- to coarse-grained sand, well graded, gravel is fractured or rounded, sand is angular to sub-rounded, low to moderate plasticity, gravel is primarily quartzite, sand contains abundant quartz, some feldspar, rock fragments, iron stain, dark minerals, trace mica, slightly moist to dry at 23.0-23.7'. 57% gravel, 11% sand, 14% silt, 18% clay.
	No recovery for this interval.
GC:	Clayey Gravel with some silt and sand - light brown (5YR5/6), as described above.
CL /sc:	Sandy Clay with some silt and gravel - moderate brown (5YR4/4), as described below.
	No recovery for this interval.
CL /sc:	Sandy Clay with some silt and gravel - moderate brown (5YR4/4), maximum gravel diameter .11', average .04', fine-grained sand, poorly graded, sub-angular to rounded, moderate plasticity, gravel is primarily quartzite, sand contains abundant quartz, some feldspar, kaolinized feldspar, dark minerals, trace rock fragments, mica, slightly moist. 8% gravel, 33% sand, 19% silt, 40% clay.
GC:	Clayey Gravel with some sand and silt - moderate yellowish brown (10YR5/4), as described above.
	No recovery for this interval.
GC:	Clayey Gravel with some sand and silt - moderate yellowish brown (10YR5/4), as described above.
	No recovery for this interval.
GC:	Clayey Gravel with some sand and silt - moderate yellowish brown (10YR5/4), as described below.
	No recovery for this interval.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 50.0	GROUND ELEVATION (FT):	5935.17	PROJECT NUMBER:	002/RI
NORTH:	750400.91	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST:	2088449.23	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/20/92

LOG OF BORING NUMBER: 03991

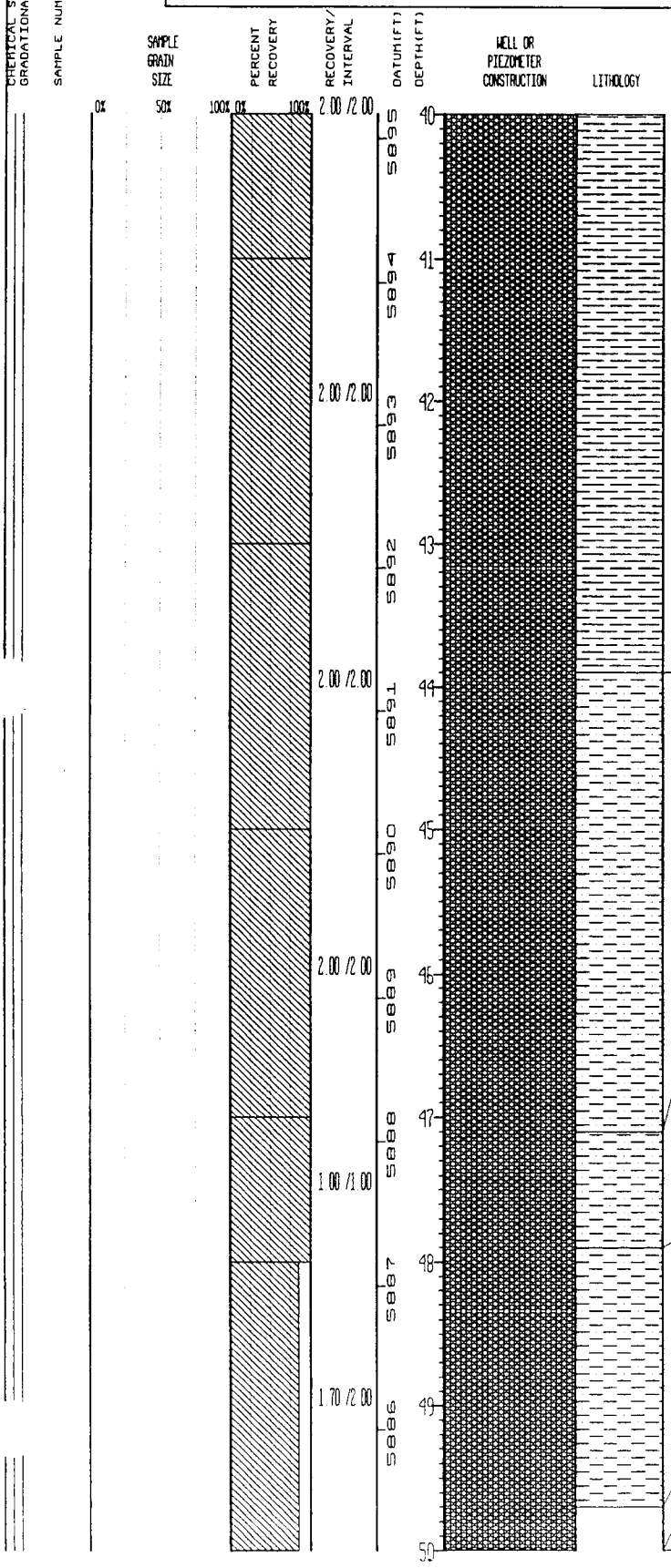
REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 25.0 FT. - 21.5 FT. BACKFILL MATERIAL: BENTONITE 50.4 FT. - 39.4 FT.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
GC	Clayey Gravel with some sand and silt - moderate yellowish brown (10YR5/4), maximum gravel diameter .2', average .11', fine- to coarse-grained sand, well graded, gravel is rounded, sand is angular to rounded, low to moderate plasticity, gravel is primarily quartzite with trace silty arkosic arenite at 31.15' and granite at 35.5', sand contains abundant quartz, some rock fragments, feldspar, kaolinized feldspar, dark minerals (Hornblende), trace mica, increased sand and decreased gravel content at 35.0-35.6', medium light gray (N6) silty clay clasts at 35.9-36.0', probably re-worked bedrock, slightly moist at 26.6-33.0', moist, 33.0-34.8', saturated at 34.8-37.0' 38% gravel, 16% sand, 15% silt, 31% clay Top of bedrock at 37.0 ft. Bedrock-Alluvium contact may be as high as 36.1', no recovery at 36.0-37.0'
	VOA sample obtained from this interval
GC	Clayey Gravel with some sand and silt - moderate yellowish brown (10YR5/4), as described above
	No recovery for this interval
CLAYSTONE	Claystone with some silt - yellowish gray (5Y7/2) to light gray (N7), dark gray (N3) where abundant carbonaceous material at 41.0-41.9', very fine- to fine-grained, very well sorted, sub-rounded to well rounded, approximately 4% porosity, argillaceous cement, moderately friable, abundant frosted quartz, trace dark minerals, iron stain, mottled at 37.0-38.1', thinly bedded with carbonaceous laminea at regular .04' intervals, abundant plant fragments (> .05'x.05') at 38.1-38.6', mottled at 38.6-40.4', some iron stain at 40.0-41.0', thinly bedded with laminea at 40.4-41.0', mottled at 41.0-43.9', possible aquatard at 40.5-43.9', slightly moist 4% sand, 15% silt, 81% clay

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 50.0	GROUND ELEVATION (FT):	5935.17	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 750400.91	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	03991
EAST: 2088449.23	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/20/92	

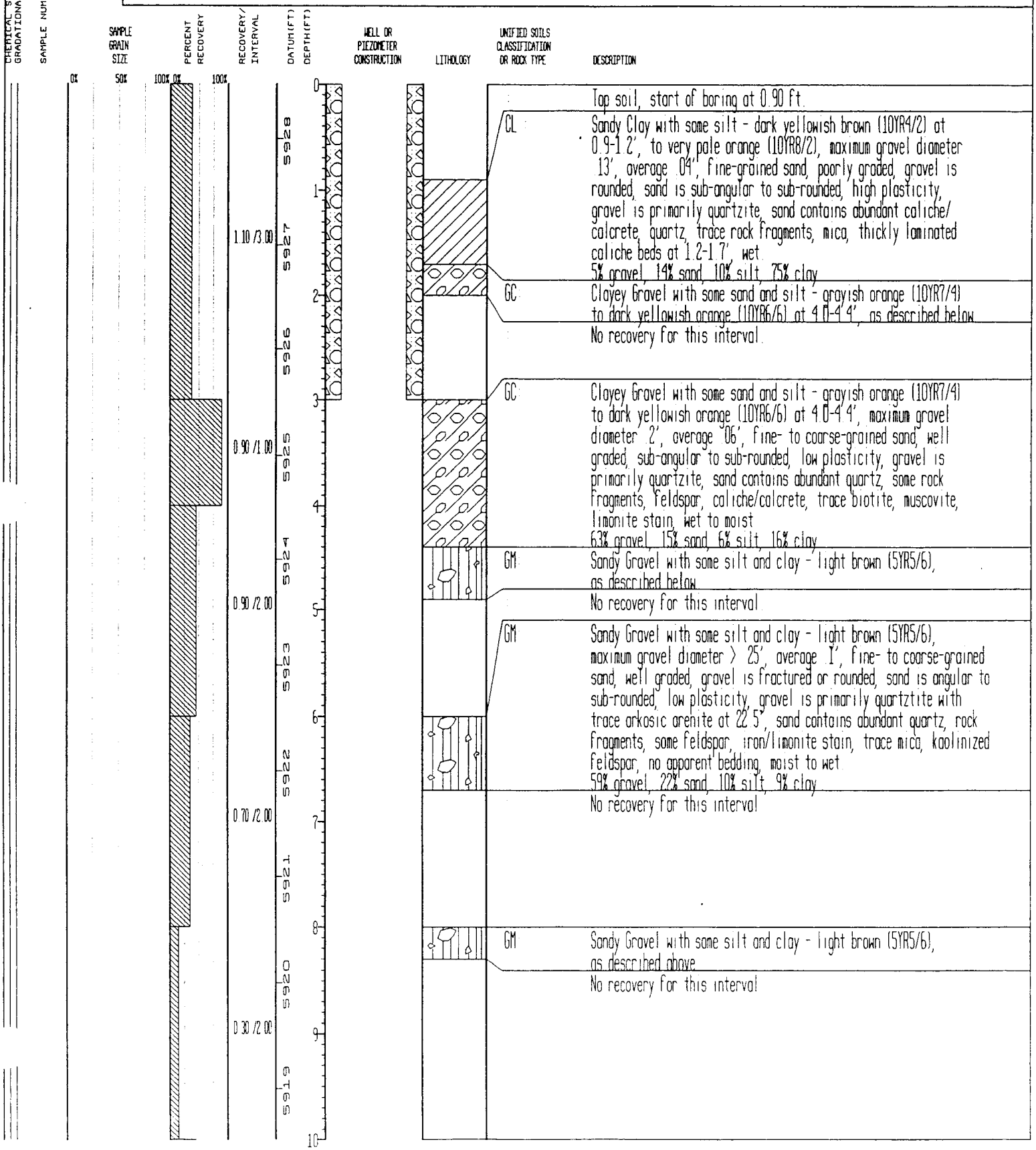
REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 25.0 FT. - 21.5 FT. BACKFILL MATERIAL: BENTONITE 50.4 FT. - 39.4 FT.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
SANDY CLAYSTONE	Sandy Claystone with some silt - light olive gray (5Y6/1) to grayish yellow (5Y8/4), olive gray (5Y4/1) at 45.1', 46.3-47.0', very fine- to fine-grained, well sorted, sub-rounded to rounded, approximately 5% porosity, argillaceous cement, moderately friable, abundant frosted quartz, trace dark minerals, iron stain, mottled at 43.9-44.7', thinly bedded with carbonaceous-clay laminea at regular .03' intervals at 44.7-46.3', pseudonodules and clay rip-up clasts at 46.5-47.0', slightly moist to dry. 12% sand, 9% silt, 79% clay.
SANDY CLAYSTONE	Sandy Claystone with some silt - pale yellowish brown (10YR6/2), very fine- to fine-grained, well sorted, rounded to well rounded, approximately 7% porosity, argillaceous cement, non- to highly friable, abundant frosted quartz, some rock fragments, dark minerals, iron stain, thickly laminated to medium bedded, dry. 17% sand, 13% silt, 70% clay
SANDY CLAYSTONE	Sandy Claystone with some silt - light olive gray (5Y6/1), very fine- to fine-grained, very well sorted, rounded to well rounded, approximately 9% porosity, argillaceous cement, non-friable, abundant frosted quartz, some dark minerals, trace feldspar, consolidated, fissil, vertically aligned carbonaceous material (plant stem) at 48.3', very thinly laminated with parting lineation at 48.7-49.7', dry. 25% sand, 23% silt, 52% clay
	No recovery for this interval
	Total depth at 50.0 ft

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 42.0	GROUND ELEVATION (FT):	5928.52	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH: 750729.75	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	04091
EAST: 2088689.90	LOCATOR NUMBER: I15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/17/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 26.0 FT. - 22.9 FT. BACKFILL MATERIAL: BENTONITE 42.0 FT. - 38.0 FT



STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 42.0	GROUND ELEVATION (FT):	5928.52	PROJECT NUMBER:	OU2RI
NORTH:	750729.75	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST:	2088689.90	LOCATOR NUMBER: I15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/17/92

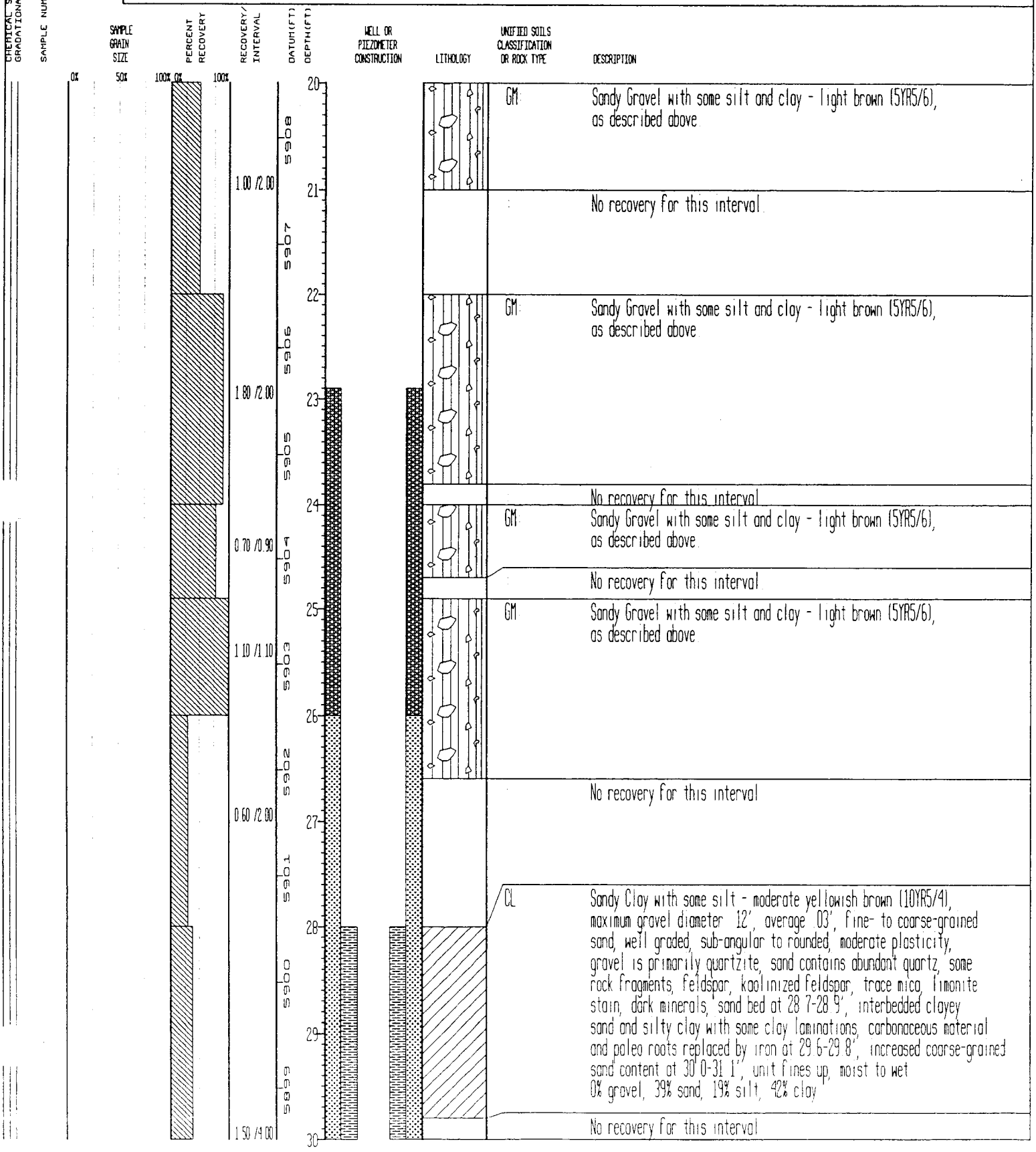
LOG OF BORING NUMBER: 04091

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 26.0 FT. - 22.9 FT. BACKFILL MATERIAL: BENTONITE 42.0 FT. - 38.0 FT.

CHEMICAL SAMPL / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% – 50%)	PERCENT RECOVERY (100% – 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					5918	10			GM:	Sandy Gravel with some silt and clay - light brown (5YR5/6), as described above.
				0.90 /2.00	5917	11				No recovery for this interval.
					5916	12			GM	Sandy Gravel with some silt and clay - light brown (5YR5/6), as described above.
				1.50 /2.00	5915	13				No recovery for this interval.
					5914	14			GM	Sandy Gravel with some silt and clay - light brown (5YR5/6), as described above.
				0.90 /2.00	5913	15				No recovery for this interval.
					5912	16				
				0.00 /2.00	5911	17				
					5910	18			GM	Sandy Gravel with some silt and clay - light brown (5YR5/6), as described above
				0.70 /2.00	5909	19				No recovery for this interval
						20				

STATE PLANE COORDINATE		TOTAL DEPTH (FT): 42.0	GROUND ELEVATION (FT):	5928.52	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	750729.75	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	04091
EAST:	2088689.90	LOCATOR NUMBER: I15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/17/92	

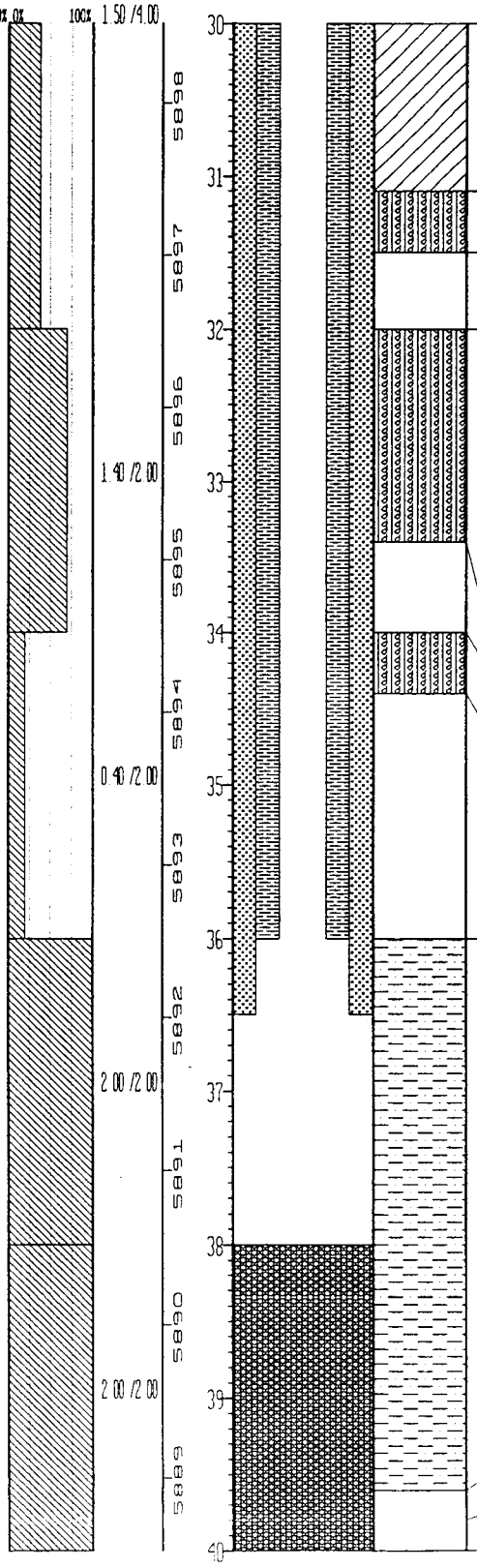
REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 26.0 FT. - 22.9 FT. BACKFILL MATERIAL: BENTONITE 42.0 FT. - 38.0 FT.



STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 42.0	GROUND ELEVATION (FT):	5928.52	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	750729.75	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	04091
EAST:	2088689.90	LOCATOR NUMBER: I15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/17/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 26.0 FT. - 22.9 FT. BACKFILL MATERIAL: BENTONITE 42.0 FT - 38.0 FT

CHEMICAL SAMPLE / GRADATIONAL SAMPLE | SAMPLE NUMBER | SAMPLE GRAIN SIZE (0% 50% 100%) | PERCENT RECOVERY (0% 100%) | RECOVERY/INTERVAL | DATUM (FT) | DEPTH (FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
CL	Sandy Clay with some silt - moderate yellowish brown (10YR5/4), as described above.
SM/gm	Gravelly Sand with some silt and clay - grayish orange (10YR7/4), as described below.
	No recovery for this interval.
SM/gm	Gravelly Sand with some silt and clay - grayish orange (10YR7/4), maximum gravel diameter > .25', average .05', fine- to coarse-grained sand, well graded, gravel is rounded, sand is sub-angular to rounded, low plasticity, gravel is primarily quartzite with some granite at 32.4-33.0', silty arkosic arenite at 33.2', sand contains abundant quartz, rock fragments, some feldspar, kaolinized feldspar, trace dark minerals, muscovite, iron stain, trace light olive gray (5Y5/2) sandy clay clasts with an average diameter of .05'x.05', increased sand, decreased size and amount of gravel and clay at 34.1-34.4', moist to wet 32% gravel, 45% sand, 14% silt, 8% clay.
	No recovery for this interval.
SM/gm	Gravelly Sand with some silt and clay - grayish orange (10YR7/4), as described above.
	No recovery for this interval. Top of bedrock at 36.0 ft.
SANDY CLAYSTONE	Sandy Claystone with some silt - olive gray (5Y4/1) to dark yellowish orange (10YR6/6) where iron stained (37.5-37.8', 40.0-40.5'), very fine- to fine-grained, well sorted, sub-rounded to well rounded, approximately 9% porosity, argillaceous cement, slightly to moderately friable, abundant frosted quartz, trace dark minerals/rock fragments, mottled to faintly laminated, moist. 30% sand, 11% silt, 59% clay.
	VOA sample obtained from this interval.
	VOA sample obtained from this interval.

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 42.0	GROUND ELEVATION (FT):	5928.52	PROJECT NUMBER:	0412RI
NORTH: 750729.75	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST: 2088689.90	LOCATOR NUMBER: I15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/17/92

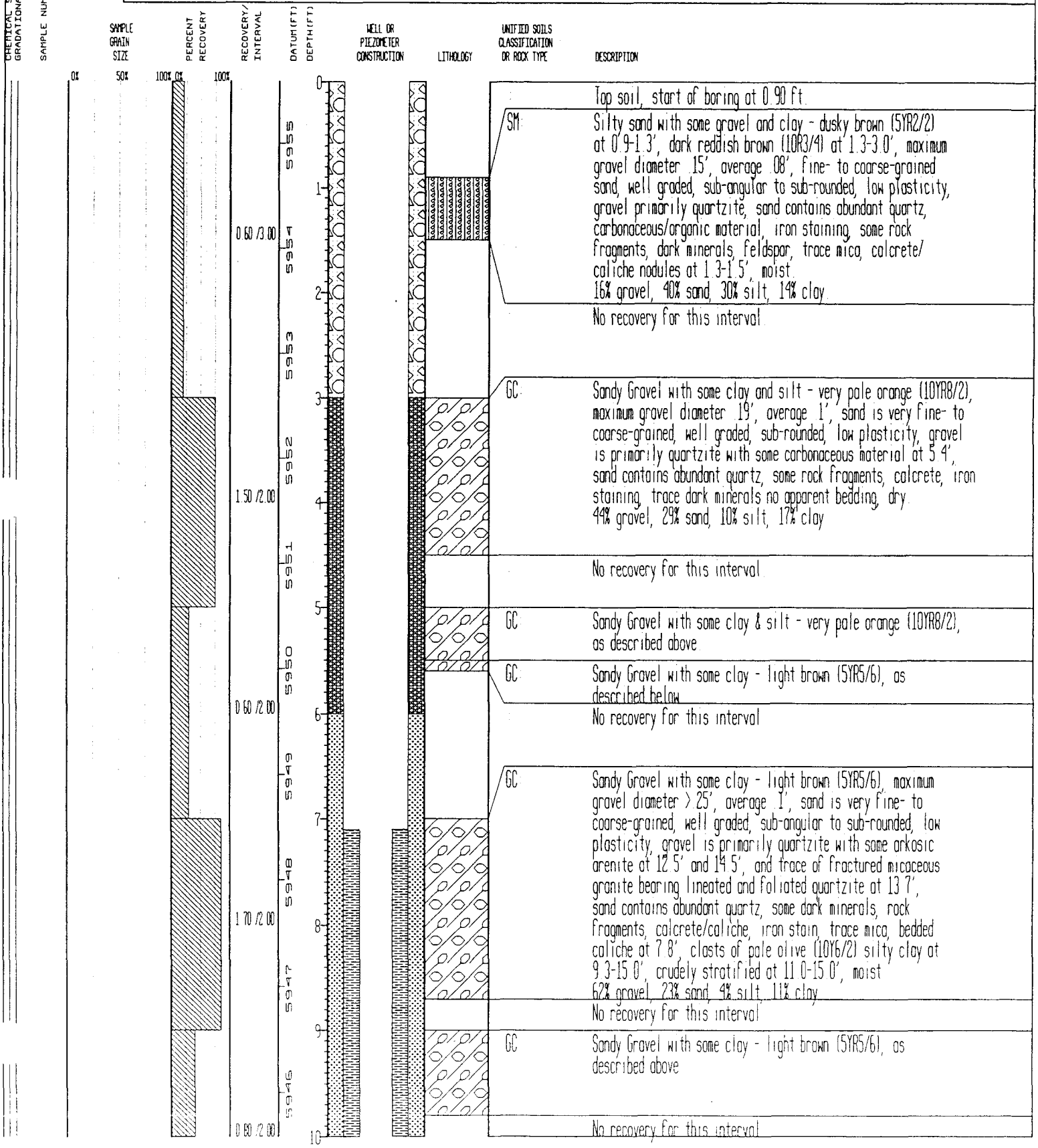
LOG OF BORING NUMBER: 04091

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 26.0 FT. - 22.9 FT. BACKFILL MATERIAL: BENTONITE 42.0 FT. - 38.0 FT.

DEPTH	CHEMICAL SAMPL / GRADATIONAL S.	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					2.00 /2.00	5888	40			SANDY CLAYSTONE	Sandy Claystone with some silt - olive gray (5Y4/4) to dark yellowish orange (10YR6/6), as described above.
						5887	41				
							42				Total depth at 42.0 ft.
						5886	43				
						5885	44				
						5884	45				
						5883	46				
						5882	47				
						5881	48				
						5880	49				
						5879	50				

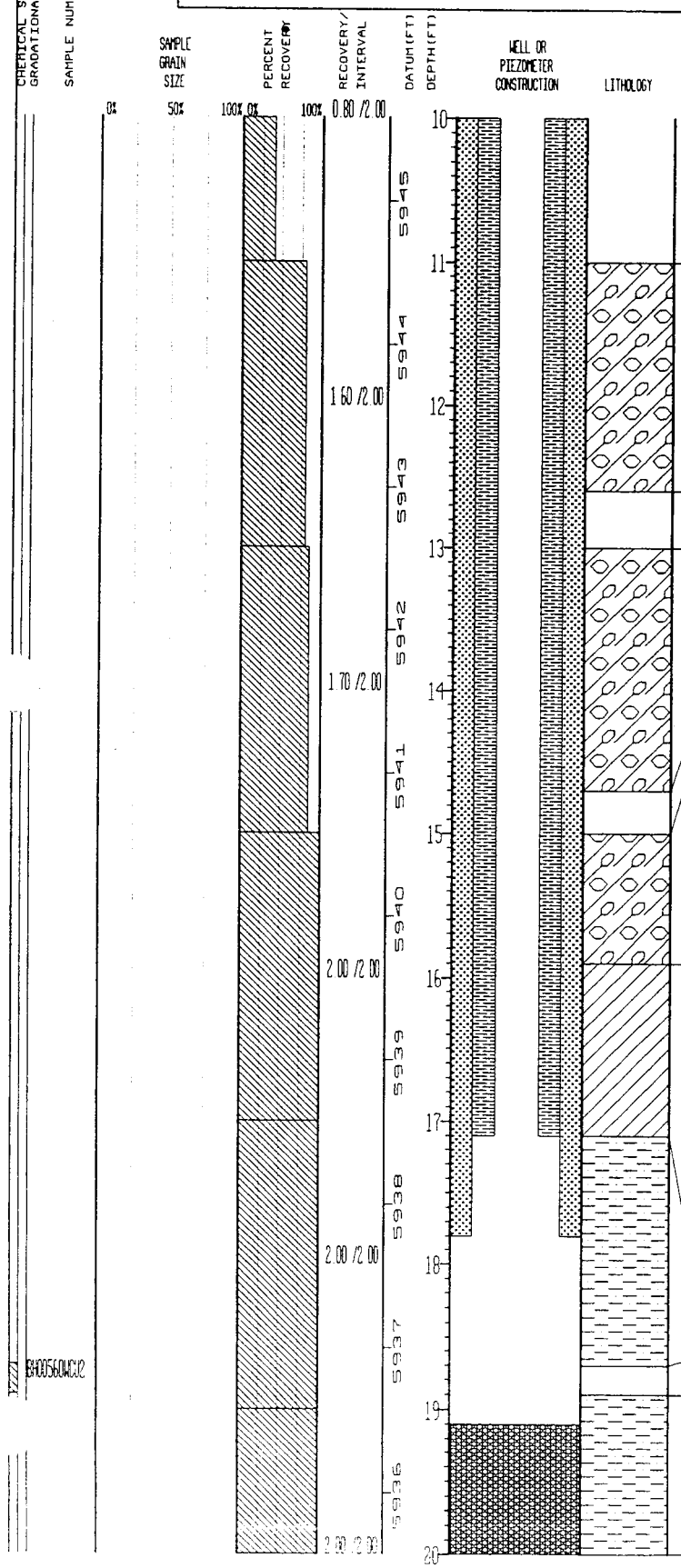
STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 25.0	GROUND ELEVATION (FT):	5955.58	PROJECT NUMBER	OU2RI	LOG OF BORING NUMBER:
NORTH:	749430.44	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	04191
EAST:	2087330.45	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/05/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 6.0 FT. - 3.0 FT. BACKFILL MATERIAL: BENTONITE 25.0 FT. - 19.1 FT.



STATE PLANE COORDINATE		TOTAL DEPTH (FT): 25.0	GROUND ELEVATION (FT): 5955.58	PROJECT NUMBER: 002RI	LOG OF BORING NUMBER:
NORTH:	749430.44	AREA: 903 PAD	CASING DIAMETER (IN): 2.0	GEOLOGIST: J.P. O'BRIEN	04191
EAST:	2087330.45	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 02/05/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 6.0 FT. - 3.0 FT. BACKFILL MATERIAL: BENTONITE 25.0 FT. - 19.1 FT.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	No recovery for this interval
GC	Sandy Gravel with some clay - light brown (5YR5/6), as described above.
	No recovery for this interval.
GC	Sandy Gravel with some clay - light brown (5YR5/6), as described above.
	No recovery for this interval.
GC	Sandy Gravel with some clay - yellowish gray (5Y7/2), maximum gravel diameter .2', average .05', very fine- to coarse-grained sand, well graded, sub-rounded, low-medium plasticity gravel is primarily quartzite, some iron stain, sand contains abundant quartz, some rock fragments, calcrete, iron staining, trace dark minerals, mica, no apparent bedding, moist. 51% gravel, 30% sand, 5% silt, 14% clay
CL	Sandy Clay with some gravel & silt - light olive gray (5Y6/1), maximum gravel diameter .18', average .06', very fine- to coarse-grained sand, well graded, gravel is well rounded, sand is angular to sub-angular, high plasticity, gravel is primarily quartzite with some arkosic arenite at 16.5', sand contains abundant quartz, some rock fragments, iron staining mica, trace dark minerals, no apparent bedding, appears to be reworked bedrock, gradational contact, moist. 17% gravel, 26% sand, 9% silt, 48% clay. Top of bedrock at 17.1'
SANDY CLAYSTONE	Sandy Claystone with some silt - light olive gray (5Y6/1), where iron stained dark yellowish orange (10YR6/6), as described below
	VOA sample obtained from this interval
SANDY CLAYSTONE	Sandy Claystone with some silt - light olive gray (5Y6/1), where iron stained dark yellowish orange (10YR6/6), as described below

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 25.0	GROUND ELEVATION (FT):	5955.58	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749430.44	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	04191
EAST:	2087330.45	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/05/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 6.0 FT. - 3.0 FT. BACKFILL MATERIAL: BENTONITE 25.0 FT. - 19.1 FT.

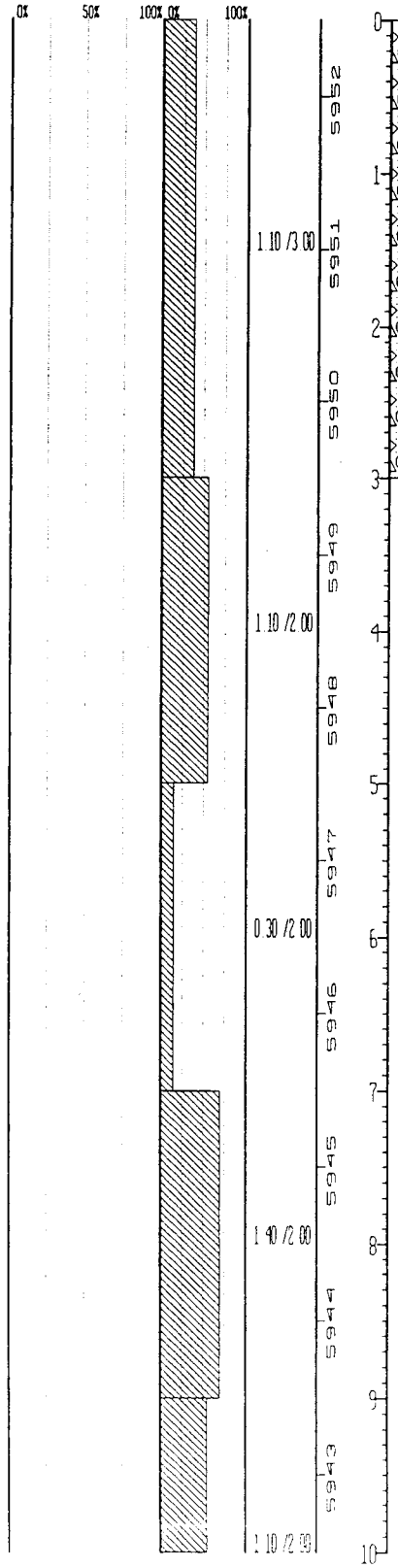
CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50%	100% 0% 100%	2.00/2.00	5935	20			SANDY CLAYSTONE	Sandy Claystone with some silt - light olive gray (5Y6/1) where iron stained dark yellowish orange (10YR6/6), very fine-grained, very well sorted, sub-rounded to rounded, approximately 5% porosity, argillaceous cement, slightly to non-friable, abundant quartz, some iron stain, trace dark minerals, mottled, crudely laminated at 22.0-25.0', heavy iron stain along and discordent to bedding at 19.0', 22.0', 23.0', 24.5', iron nodules and manganese oxide at 22.0', 22.5', 23.3', multiple fractures healed with iron oxide dipping up to 80 degrees at 24.0-25.0', moist. 21% sand, 8% silt, 71% clay
					5934	21				
				2.00/2.00	5933	22				
					5932	23				
				2.00/2.00	5931	24				
					5930	25				Total depth at 25.0 ft.
					5929	26				
					5928	27				
					5927	28				
					5926	29				
						30				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 29.0	GROUND ELEVATION (FT):	5952.50	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749474.72	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	04291
EAST:	2087654.19	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	01/29/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 17.6 FT. - 14.0 FT. BACKFILL MATERIAL: BENTONITE 30.5 FT. - 25.1 FT.

CHEMICAL SAMP
GRADATIONAL S
SAMPLE NUMBER
FT
DEPTH

SAMPLE GRAIN SIZE (0% 50% 100%) | PERCENT RECOVERY (0% 100%) | RECOVERY/INTERVAL | DATUM (FT) | DEPTH (FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION



Top soil, start of boring at 0.90 ft.

GC: Sandy Gravel with some clay and silt - blackish red (5R2/2) to grayish red (5R4/2), maximum gravel diameter .15', average .09', fine- to coarse-grained sand, well graded, gravel is rounded, sand is angular to sub-rounded, low to moderate plasticity, gravel is primarily quartzite and calcrete with some granite, sand contains abundant organic/carbonaceous material, quartz, feldspar, some rock fragments, calcrete, trace mica, moist.
35% gravel, 29% sand, 18% silt, 19% clay.

GC/cl: Gravelly Clay with some sand and silt - very pale orange (10YR8/2), as described below.

No recovery for this interval.

GC/cl: Gravelly Clay with some sand and silt - very pale orange (10YR8/2), maximum gravel diameter .21', average .15', fine- to coarse-grained sand, well graded, angular to sub-rounded, medium plasticity, gravel is primarily quartzite and calcrete nodules, sand contains abundant calcrete, caliche, quartz, some rock fragments, trace mica, moist.
35% gravel, 21% sand, 7% silt, 37% clay.

No recovery for this interval.

Gravelly Clay with some sand and silt - very pale orange (10YR8/2), as described above.

GC: Sandy Gravel with some clay and silt - light brown (5YR5/6) to very pale orange (10YR8/2), as described below.

No recovery for this interval.

GC: Sandy Gravel with some clay and silt - light brown (5YR5/6) to very pale orange (10YR8/2) where abundant caliche (9.7', 11.0-11.5'), maximum gravel diameter .2', average .1', fine- to coarse-grained sand, well graded, angular to sub-rounded, low plasticity, gravel is primarily quartzite with some grayish yellow (5Y8/4) silty clay clasts at 7.7', granite at 13.5' and trace schist at 9.2', sand contains abundant quartz, some rock fragments, feldspar, calcrete/kaolinized feldspar, trace dark minerals, mica, slightly moist.
69% gravel, 15% sand, 4% silt, 12% clay.

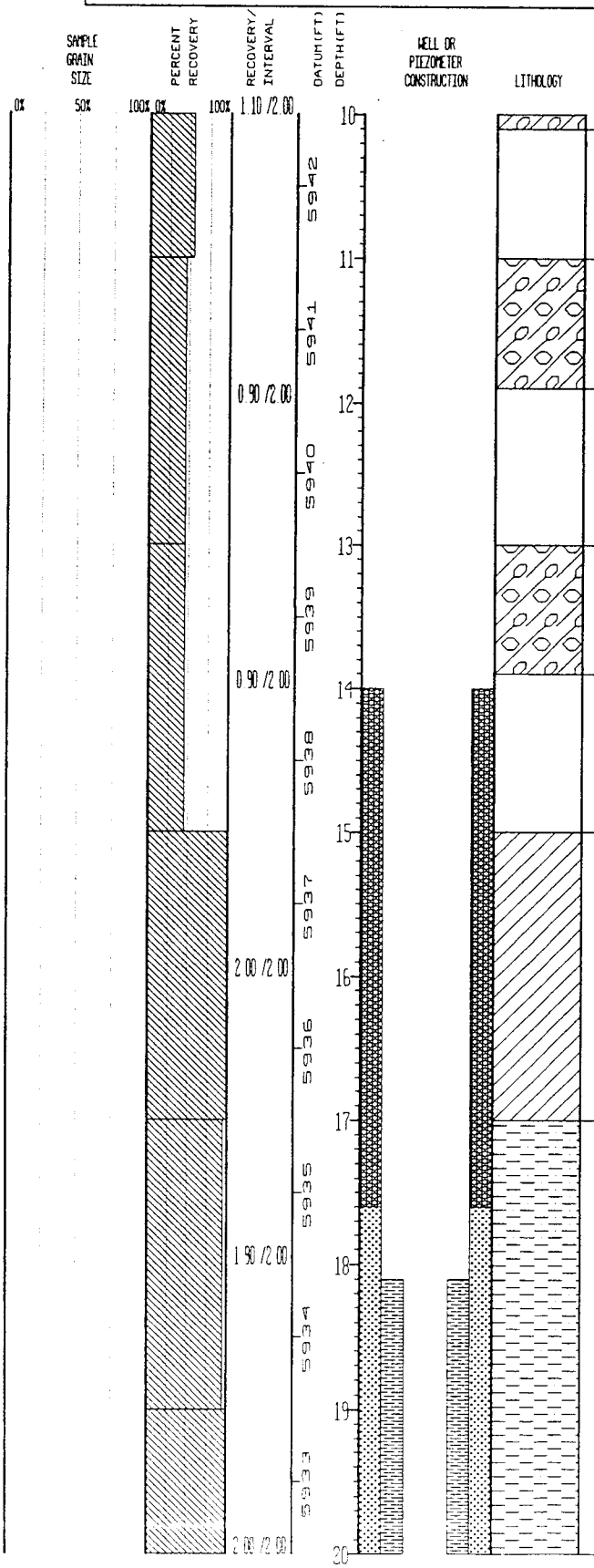
No recovery for this interval.

GC: Sandy Gravel with some clay and silt - light brown (5YR5/6) to very pale orange (10YR8/2), as described above.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 29.0	GROUND ELEVATION (FT):	5952.50	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749474.72	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	04291
EAST:	2087654.19	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	01/29/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 17.6 FT. - 14.0 FT. BACKFILL MATERIAL: BENTONITE 30.5 FT. - 25.1 FT.

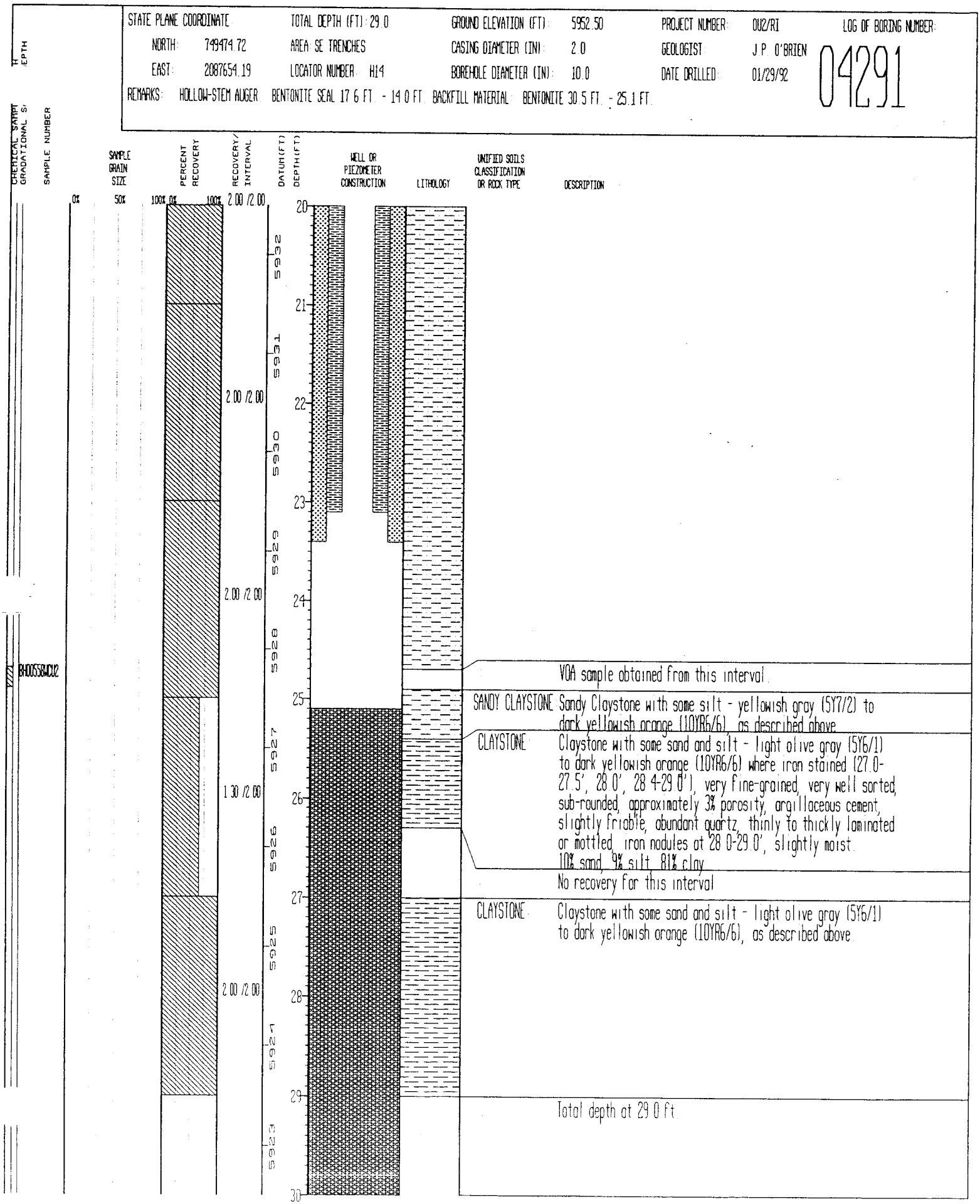
CHEMICAL SAMPL
GRADATIONAL S
DEPTH
SAMPLE NUMBER



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	No recovery for this interval.
GC	Sandy Gravel with some clay and silt - light brown (5YR5/6) to very pale orange (10YR8/2), as described above.
	No recovery for this interval.
GC	Sandy Gravel with some clay and silt - light brown (5YR5/6) to very pale orange (10YR8/2), as described above.
	No recovery for this interval.
CL	Sandy Clay with some silt - yellowish gray (5Y7/2) to light olive gray (5Y6/1), maximum gravel diameter .07', average .02', fine- to medium-grained sand, poorly graded, gravel is rounded, sand is sub-angular to rounded, high plasticity, gravel is primarily quartzite with some granite at 16.7', sand contains abundant quartz, some kaolinized feldspar, trace rock fragments, mica, dark minerals, limonite stain, some iron stain at 16.8-17.0', slightly moist. 1% gravel, 24% sand, 12% silt, 63% clay. Top of bedrock at 17.0 ft.
SANDY CLAYSTONE	Sandy Claystone with some silt - yellowish gray (5Y7/2) to dark yellowish orange (10YR6/6) where iron stained (17.7-17.9', 18.5-18.9', 21.5-21.9', 22.6'), very fine-grained, very well sorted, sub-rounded to well rounded, approximately 11% porosity, argillaceous cement, moderately friable, abundant frosted quartz, some dark minerals/rock fragments, trace mica, limonite/iron stain, thinly laminated to thinly bedded, clay bed at 20.6-20.8', carbonaceous material along laminea at 23.6-24.2', contact with unit below sharp and with load structures, slightly moist. 39% sand, 6% silt, 55% clay.

STATE PLANE COORDINATE		TOTAL DEPTH (FT): 29.0	GROUND ELEVATION (FT): 5952.50	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:
NORTH:	749474.72	AREA: SE TRENCHES	CASING DIAMETER (IN): 2.0	GEOLOGIST: J.P. O'BRIEN	04291
EAST:	2087654.19	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 01/29/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 17.6 FT. - 14.0 FT. BACKFILL MATERIAL: BENTONITE 30.5 FT. - 25.1 FT.



STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 33.0	GROUND ELEVATION (FT):	5949.51	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH: 749362.55	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	04491
EAST: 2087887.93	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	01/16/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 14.3 FT. - 10.7 FT. BACKFILL MATERIAL: BENTONITE 33.5 FT. - 29.0 FT.

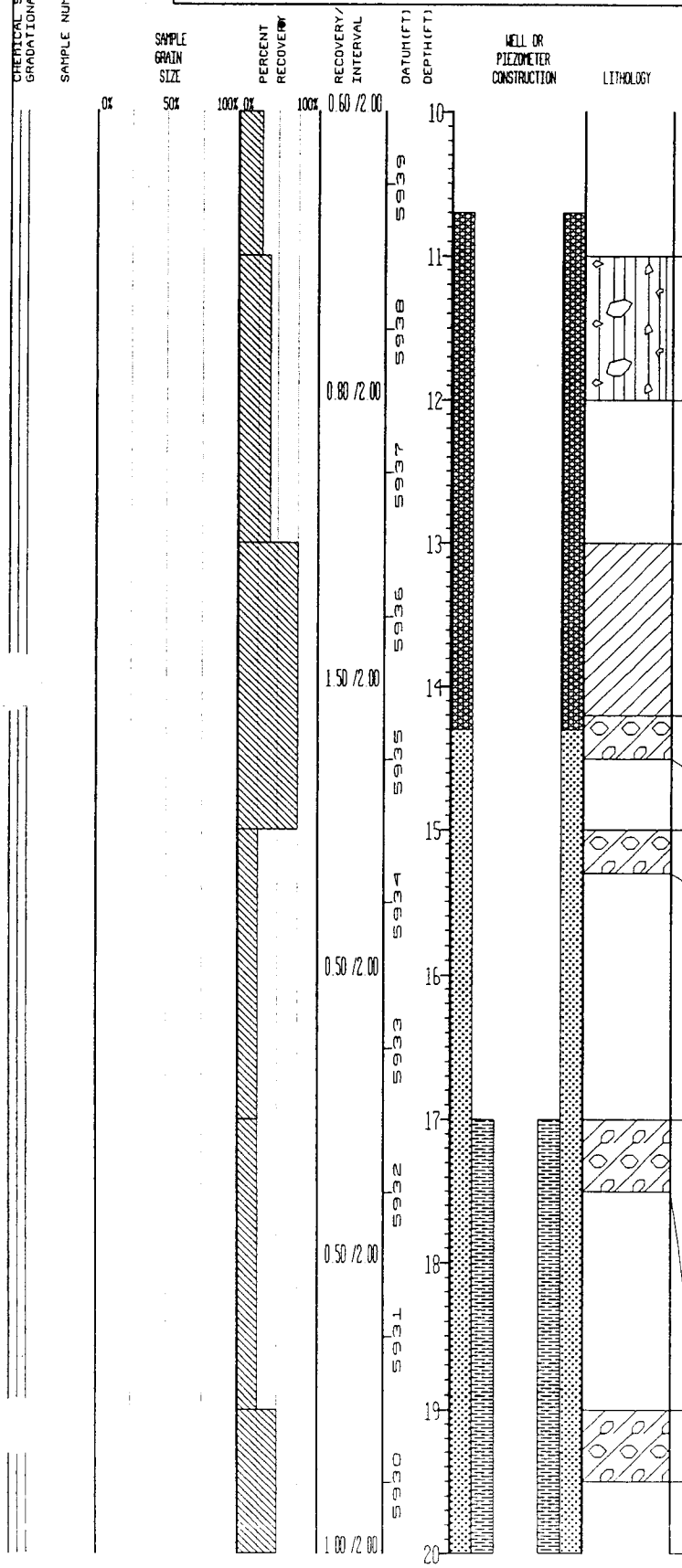
CHEMICAL SAMPL
GRADATIONAL SA
DEPTH
SAMPLE NUMBER
SAMPLE GRAIN SIZE (0% – 50% – 100%)
PERCENT RECOVERY (0% – 100%)
RECOVERY/INTERVAL
DATUM (FT)
DEPTH (FT)
WELL OR PIEZOMETER CONSTRUCTION
LITHOLOGY

RECOVERY/INTERVAL	DATUM (FT)	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			Top soil, start of boring at 0.90 ft.
0.50/3.00	5949–5948	SM:	Gravelly Sand with some silt & clay - blackish red (5R2/2), maximum gravel diameter .21', average .05', fine- to coarse-grained sand, well graded, gravel rounded to angular, sand angular to sub-rounded, low to medium plasticity, gravel is primarily quartzite with some arkosic arenite at 1.3', sand contains abundant quartz, carbonaceous/organic material, some iron staining, rock fragments, feldspar, no apparent bedding, dry. 21% gravel, 51% sand, 16% silt, 12% clay
			No recovery for this interval.
	5948–5947	GC:	Sandy Gravel with some clay - grayish orange (10YR7/4), maximum gravel diameter .21', average .07', very fine- to coarse-grained sand, well graded, sub-angular to sub-rounded, low plasticity, gravel primarily quartzite with some calcrete, sand contains abundant quartz, calcrete, some rock fragments feldspar, trace mica, no apparent bedding, dry. 40% gravel, 41% sand, 5% silt, 14% clay
	5947–5946		No recovery for this interval
0.50/2.00	5946–5945		
	5945–5944	GC:	Sandy Gravel with some clay - grayish orange (10YR7/4), as described above
			No recovery for this interval.
0.50/2.00	5944–5943		
	5943–5942	GC:	Sandy Gravel with some clay - grayish orange (10YR7/4), as described above
			No recovery for this interval
0.50/2.00	5942–5941		
	5941–5940	GM:	Sandy Gravel with some silt & clay - dark yellowish orange (10YR6/6), maximum gravel diameter > 25', average .09', very fine- to coarse-grained sand, well graded, sub-angular to sub-rounded, low plasticity, gravel primarily quartzite with some foliated granite at 11.1', sand contains abundant quartz some rock fragments, feldspar, trace dark minerals, mica, no apparent bedding, moist 44% gravel, 39% sand, 10% silt, 7% clay
0.60/2.00	5940		No recovery for this interval

DEPTH (FT): 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 33.0	GROUND ELEVATION (FT):	5949.51	PROJECT NUMBER:	0U2RI	LOG OF BORING NUMBER:
NORTH:	749362.55	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	04491
EAST:	2087887.93	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	01/16/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 14.3 FT. - 10.7 FT. BACKFILL MATERIAL: BENTONITE 33.5 FT. - 29.0 FT.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
GM	Sandy Gravel with some silt & clay - dark yellowish orange (10YR6/6), as described above.
	No recovery for this interval
CL	Sandy Clay with some silt - moderate brown (5YR4/4), maximum gravel diameter .09', average .07', very fine- to medium-grained sand, poorly graded, sub-rounded, medium plasticity, abundant quartz, some feldspar, rock fragments, trace dark minerals, mica, no apparent bedding, moist. 1% gravel, 38% sand, 12% silt, 49% clay.
GC	Sandy Gravel with some clay - grayish orange (10YR7/4), as described below.
	No recovery for this interval.
GC	Sandy Gravel with some clay - grayish orange (10YR7/4), as described below.
	No recovery for this interval.
GC	Sandy Gravel with some clay - grayish orange (10YR7/4), maximum gravel diameter .15', average .09', very fine- to coarse-grained sand, well graded angular to sub-rounded, low to medium plasticity, gravel is primarily quartzite with some fractured syenite at 15.0-15.3', sand contains abundant quartz, some feldspar, dark minerals, rock fragments, iron staining on clasts, trace mica, no apparent bedding, moist. 42% gravel, 37% sand, 4% silt, 17% clay.
	No recovery for this interval.
GC	Sandy Gravel with some clay - grayish orange (10RY7/4), as described above.
	No recovery for this interval.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 33.0	GROUND ELEVATION (FT):	5949.51	PROJECT NUMBER:	OU2RI
NORTH:	749362.55	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST:	2087887.93	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	01/16/92

LOG OF BORING NUMBER: 04491

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 14.3 FT. - 10.7 FT. BACKFILL MATERIAL: BENTONITE 33.5 FT. - 29.0 FT.

CHEMICAL SAMPL
GRADATIONAL SA
SAMPLE NUMBER
DEPTH

SAMPLE GRAIN SIZE: 0% 50% 100%

PERCENT RECOVERY: 0% 100%

RECOVERY/INTERVAL: 1.00 /2.00; 1.80 /2.00; 2.00 /2.00; 2.00 /2.00; 2.00 /2.00; 2.00 /2.00; 2.00 /2.00

DATUM (FT): 5929, 5928, 5927, 5926, 5925, 5924, 5923, 5922, 5921, 5920

DEPTH (FT): 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30

WELL OR PIEZOMETER CONSTRUCTION

LITHOLOGY

UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
CL	Clayey Sand with some silt & gravel - moderate reddish brown (10R4/6), maximum gravel diameter .08', average .02, very fine- to coarse-grained sand, well graded, sub-rounded to rounded, medium plasticity, sand contains abundant quartz, some dark minerals, feldspar, rock fragments, no apparent bedding, moist. 9% gravel, 40% sand, 16% silt, 35% clay.
	No recovery for this interval.
CL	Clayey Sand with some silt & gravel - moderate reddish brown (10R4/6), as described above.
CL	Clayey Sand with some silt - light brown (5YR5/6) with clasts of silt clay - yellowish gray (5Y7/2), very fine- to medium-grained, poorly graded, sub-rounded to rounded, medium plasticity, abundant quartz, some feldspar, trace rock fragments, mica, dark minerals, some manganese oxide stain throughout, some gravel at 25.2'-26.8', maximum diameter .13', average .05', primarily quartzite, moist. 46% sand, 9% silt, 45% clay. Top of bedrock at 27.0 ft.
SANDY CLAYSTONE	Sandy Claystone - yellowish gray (5Y7/2) to light olive gray (5Y6/1), very fine- to fine-grained sand, well sorted, angular, approximately 3% porosity, argillaceous cement, slightly friable, abundant quartz, trace dark minerals, irregularly-thickly laminated to mottled. 23% sand, 5% silt, 72% clay.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 33.0	GROUND ELEVATION (FT):	5949.51	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749362.55	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	04491
EAST:	2087887.93	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	01/16/92	

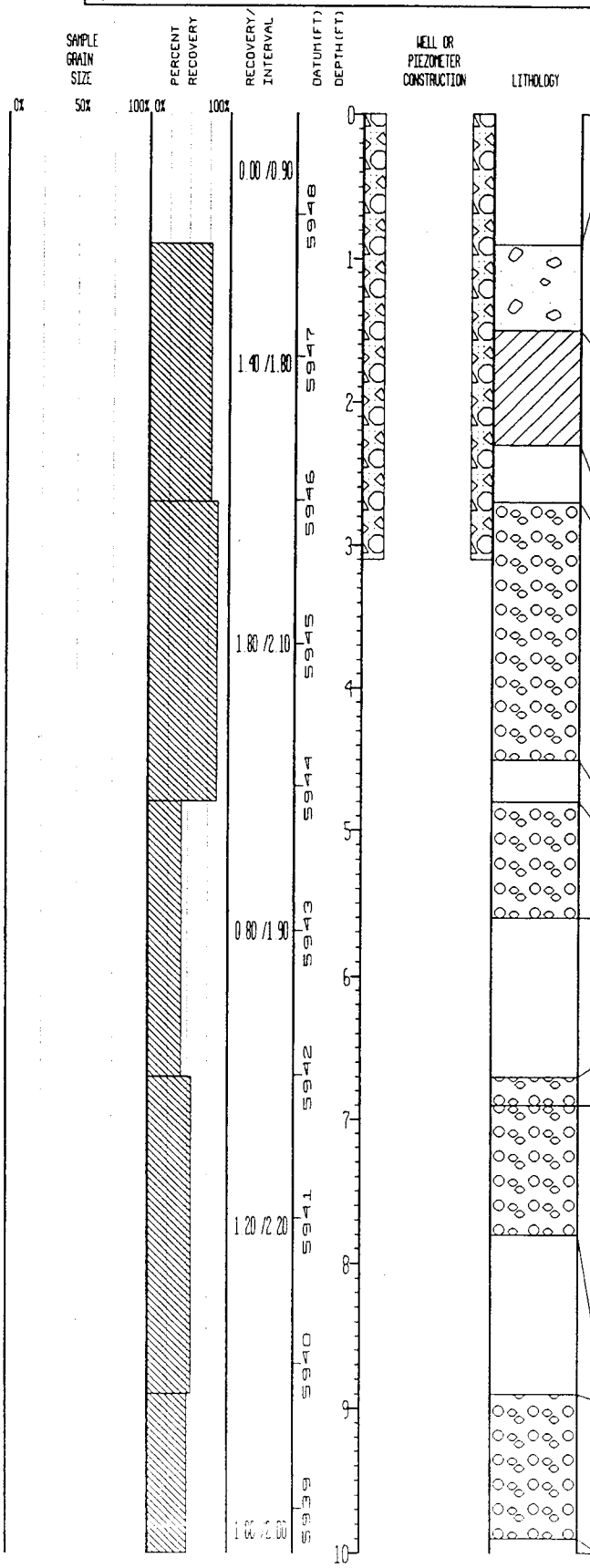
REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 14.3 FT. - 10.7 FT. BACKFILL MATERIAL: BENTONITE 33.5 FT. - 29.0 FT.

CHEMICAL SAMP / GRADATIONAL S.	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50%	100% 0% 100%	2.00 /2.00	5919	30			SANDY CLAYSTONE	Sandy Claystone - yellowish gray (5Y7/2) to light olive gray (5Y6/1), as described above, increased iron staining at 30.8-33.0', prevelent iron stained thin laminea (2mm) at 31.2', increased iron staining along and discordent to laminea at 31.5-33.0'.
				2.00 /2.00	5918	31				
					5917	32				
					5916	33				Total depth at 33.0 ft.
					5915	34				
					5914	35				
					5913	36				
					5912	37				
					5911	38				
					5910	39				
						40				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 50.9	GROUND ELEVATION (FT):	5948.69	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749286.39	AREA: S.E. TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L. A. GUST	04591
EAST:	2088034.25	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/02/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 33.7 FT. - 30.2 FT. BACKFILL MATERIAL: BENTONITE 50.9 FT. - 46.1 FT.

CHEMICAL SAMPL
GRADATIONAL SA
DEPTH
SAMPLE NUMBER



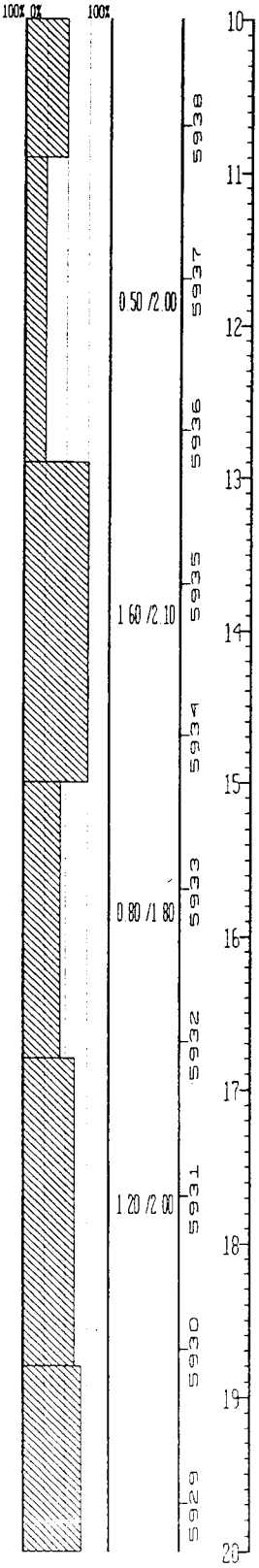
UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	Top soil, start of boring at 0.90 ft.
GP	Gravel with some sand - grayish black (N3), maximum size gravel 1" diameter, average 1/4" diameter, coarse- to fine-grained sand, poorly graded, sub-angular, low plasticity, gravel primarily quartzite with some granite, dominant lithology sand quartz and dark minerals with some caliche and rock fragments, no apparent bedding, moist, abundant roots. 80% gravel, 18% sand, 2% silt
CL	Clay with some silt - moderate reddish orange (10R6/6), fine-grained sand, poorly graded, sub-angular, low plasticity, dominant lithology sand quartz with abundant caliche throughout interval, no apparent bedding, dry. 3% sand, 12% silt, 85% clay
	No recovery for this interval.
GW	Sandy Gravel - grayish orange (10YR7/4), maximum size gravel 2 1/2" diameter, average size 1/2" diameter, coarse- to fine-grained sand, well graded, sub-angular to sub-rounded gravel, sub-rounded sand, low plasticity, gravel primarily quartzite with some granite and trace schist, dominant lithology sand quartz with trace mica, K-spar and rock fragments, abundant caliche and caliche coating on gravel and sand grains throughout interval, iron staining on grains, no apparent bedding, dry. 62% gravel, 33% sand, 3% silt, 2% clay
	No recovery for this interval.
GW	Sandy Gravel - grayish orange (10YR7/4), as described above
	No recovery for this interval
GW	Sandy Gravel - grayish orange (10YR7/4), as described above
GW	Sandy Gravel - moderate reddish brown (10R4/6), maximum gravel size 2" diameter, average 1" diameter, coarse- to fine-grained sand, well graded, gravel sub-angular, sand angular to sub-angular, low plasticity, gravel primarily quartzite, dominant lithology sand quartz with some mica, K-spar and dark minerals, trace limonite and carbonaceous material, some iron staining on grains and throughout interval, trace caliche, no apparent bedding, moist. 58% gravel, 38% sand, 3% silt, 1% clay
	No recovery for this interval
GW	Sandy Gravel - moderate reddish brown (10R4/6), as described above

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 50.9	GROUND ELEVATION (FT):	5948.69	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749286.39	AREA: S.E. TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L. A. GUST	04591
EAST:	2088034.25	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/02/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 33.7 FT. - 30.2 FT. BACKFILL MATERIAL: BENTONITE 50.9 FT. - 46.1 FT.

CHEMICAL SAMPLE
GRADATIONAL SAMPLE
DEPTH
SAMPLE NUMBER

SAMPLE GRAIN SIZE (0% – 50%) | PERCENT RECOVERY (0% – 100%) | RECOVERY/INTERVAL | DATUM (FT) | DEPTH (FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION

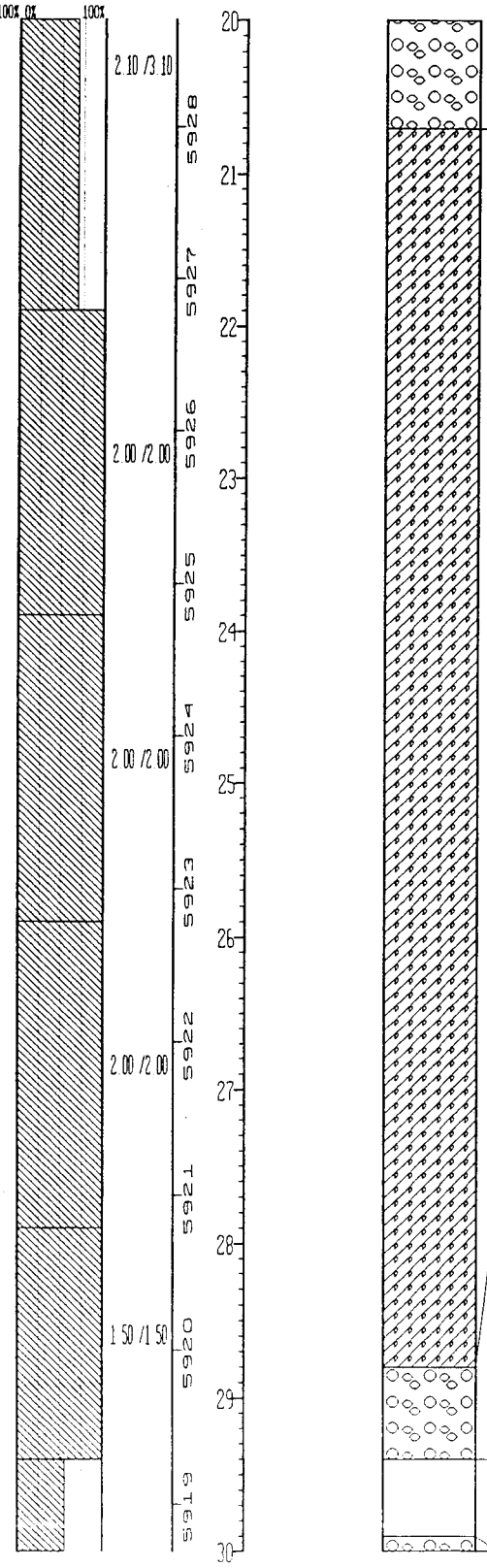


UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	No recovery for this interval.
SW	Gravelly Sand - pale olive (10Y6/2), coarse- to fine-grained sand, maximum gravel size 1 1/2", average size 1/2", well graded, sub-rounded gravel, sub-angular to sub-rounded sand, low plasticity, dominant lithology sand quartz with some rock fragments and trace mica, K-spar, dark minerals and fibrous mineral, gravel quartzite and granite, trace iron staining on grains, no apparent bedding, moist. 41% gravel, 56% sand, 1% silt, 2% clay.
	No recovery for this interval.
GW	Sandy Gravel - moderate yellowish brown (10YR5/4), maximum gravel size 1 1/2" diameter, average 1/2" diameter, coarse- to fine-grained sand, well graded, sub-angular, low plasticity, gravel primarily quartzite, dominant lithology sand quartz with some K-spar, mica and dark minerals, no apparent bedding, moist. 60% gravel, 37% sand, 3% silt.
SC	Clayey Sand - moderate brown (10R4/6), coarse- to fine-grained sand, well graded, sub-angular to sub-rounded, medium plasticity, dominant lithology sand quartz with some K-spar, mica, dark minerals and trace rock fragments, gravel quartzite, trace iron staining on grains, no apparent bedding, moist. 5% gravel, 62% sand, 2% silt, 31% clay.
	No recovery for this interval.
GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described below.
	No recovery for this interval.
GW	Sandy Gravel - moderate yellowish brown (10YR5/4), maximum size gravel larger than 2 1/2", average size 3/4" diameter, coarse- to fine-grained sand, well graded, sub-angular gravel, sub-angular to sub-rounded sand, gravel primarily quartzite and granite, dominant lithology sand quartz with some rock fragments and trace mica, K-spar and dark minerals, some iron staining on grains, no apparent bedding, moist. 70% gravel, 28% sand, 2% silt.
	No recovery for this interval.
	No recovery for this interval.
GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, increase in sand and iron staining at 20.3'-20.7'.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 50.9	GROUND ELEVATION (FT):	5948.69	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749286.39	AREA: S.E. TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L. A. GUST	04591
EAST:	2088034.25	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED	10/02/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 33.7 FT. - 30.2 FT. BACKFILL MATERIAL: BENTONITE 50.9 FT. - 46.1 FT.

CHEMICAL SAMPLE | GRADATIONAL SAMPLE | SAMPLE NUMBER | SAMPLE GRAIN SIZE (0% 50% 100%) | PERCENT RECOVERY (0% 100%) | RECOVERY/INTERVAL | DATUM(FT) | DEPTH(FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
SC	Clayey Sand with some silt - moderate brown (10R4/6) with trace pale olive (10Y6/2), coarse- to fine-grained sand, gravel up to 3/4" diameter, well graded, sub-angular to sub-rounded, medium plasticity, dominant lithology sand quartz with some K-spar, arkosic and quartzite rock fragments, trace dark minerals, gravel quartzite with trace pale yellowish orange (10YR8/6) sandstone, trace carbonaceous material throughout interval, no apparent bedding, moist, clay like appearance, gravel of 1" diameter at 26.2, increase gravel at 27.0-27.3' 6% gravel, 74% sand, 5% silt, 15% clay
GW	Sandy Gravel - moderate yellowish brown (10Y5/4), maximum size gravel 2 1/2" diameter, average size 1" diameter, coarse- to fine-grained sand, well graded, angular to sub-angular gravel, sub-angular sand, low plasticity, gravel quartzite, granite, quartz and some schist and trace pale yellowish orange (10YR8/6) sandstone, dominant lithology sand quartz with some K-spar, mica and rock fragments, trace dark minerals, trace iron staining on grains, no apparent bedding, moist 68% gravel, 27% sand, 3% silt, 2% clay
	No recovery for this interval

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 50.9	GROUND ELEVATION (FT):	5948.69	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749286.39	AREA: S.E. TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L. A. GUST	04591
EAST:	2088034.25	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/02/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 33.7 FT. - 30.2 FT. BACKFILL MATERIAL: BENTONITE 50.9 FT. - 46.1 FT.

CHEMICAL SAMP
GRADATIONAL S.
SAMPLE NUMBER
DEPTH

SAMPLE GRAIN SIZE: 0% 50% 100%

PERCENT RECOVERY: 0% 100%

RECOVERY/INTERVAL: 1.40 /2.50; 1.00 /1.70; 1.00 /1.30; 2.00 /2.00; 2.00 /2.00; 1.90 /1.90

DATUM (FT): 5918, 5917, 5916, 5915, 5914, 5913, 5912, 5911, 5910, 5909

DEPTH (FT): 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40

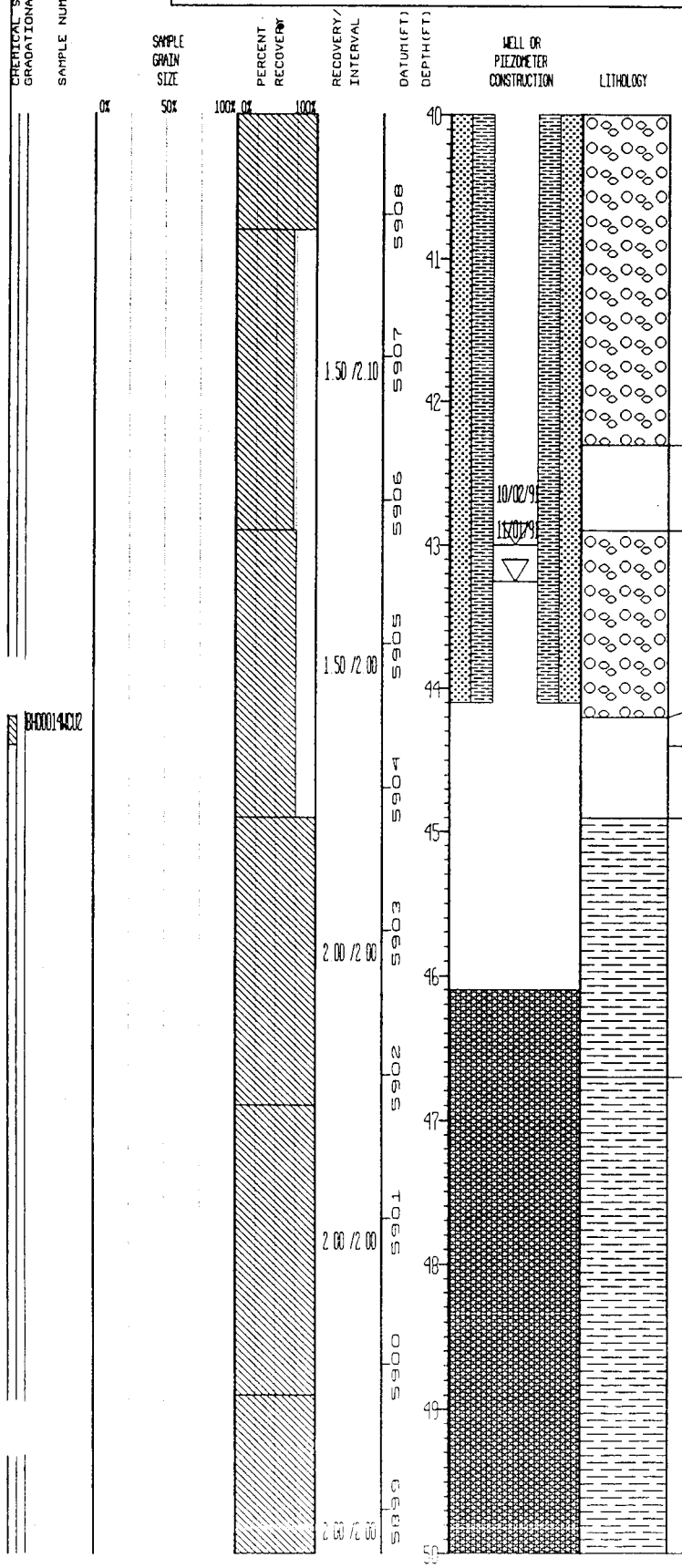
WELL OR PIEZOMETER CONSTRUCTION

LITHOLOGY

UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
GW	Sandy Gravel - moderate yellowish brown (10Y5/4), as described above, increase in sand and iron staining from 29.9-30.4'.
	No recovery for this interval.
GW	Sandy Gravel - moderate yellowish brown (10Y5/4), as described above.
	No recovery for this interval.
GW	Sandy Gravel - moderate yellowish brown (10Y5/4), as described above.
	No recovery for this interval.
SC	Clayey Sand - moderate brown (10R4/6) to pale olive (10Y6/2) medium- to fine-grained sand, sub-angular, well graded, medium plasticity, dominant lithology of sand quartz with trace K-spar, mica and dark minerals, trace iron staining on grains, trace carbonaceous material throughout interval, no apparent bedding, moist to very moist, banded iron staining at 38.0-38.6'. 6% gravel, 63% sand, 3% silt, 28% clay.
GW	Sandy Gravel - moderate yellowish brown (10YR5/4), maximum size gravel 2" diameter, average size 1/2" diameter, well graded, sub-angular to sub-rounded, low plasticity, gravel primarily quartzite, granite with trace arkosic arenite, dominant lithology sand quartz with some K-spar, mica and rock fragments, trace dark minerals, trace iron staining on grains and throughout interval, no apparent bedding, moist to saturated, increase in sand at 38.9-39.5' and at 40.8-41.3', arkosic arenite at 40.9', increase in competency and sand at 41.5-42.3'. 63% gravel, 33% sand, 1% silt, 3% clay.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 50.9	GROUND ELEVATION (FT):	5948.69	PROJECT NUMBER	OU2RI	LOG OF BORING NUMBER:
NORTH:	749286.39	AREA: S.E. TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L. A. GUST	04591
EAST:	2088034.25	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/02/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 33.7 FT. - 30.2 FT. BACKFILL MATERIAL: BENTONITE 50.9 FT. - 46.1 FT.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	No recovery for this interval.
GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, saturated pea-size gravel and increase in sand at 42.9-44.2' Top of bedrock at 44.2 ft.
	VOA sample obtained from this interval.
	No recovery for this interval.
CLAYSTONE	Claystone with some silt - moderate olive brown (5Y3/2), very fine-grained sand, well sorted, sub-angular, approximately 5% porosity, non-friable, argillaceous cement, dominant lithology sand quartz, trace limonite throughout interval, trace carbonaceous material, no apparent bedding, trace healed vertical fractures with limonite, moist to very moist, model clay, weathered. 2% sand, 5% silt, 93% clay.
CLAYSTONE	Claystone - medium dark gray (N4), very fine-grained sand, well sorted, sub-angular sand, approximately 5% porosity, argillaceous cement, non-friable, dominant lithology sand clear quartz with trace dark minerals, trace carbonaceous material, trace limonite which decrease downhole, some horizontal bedding, no apparent fractures, moist. 1% sand, 1% silt, 98% clay.

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 50.9	GROUND ELEVATION (FT):	5948.69	PROJECT NUMBER:	OU2RI
NORTH: 749286.39	AREA: S.E. TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L. A. GUST
EAST: 2088034.25	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/02/91

REMARKS: HOLLOW STEM AUGER BENTONITE SEAL 33.7 FT. - 30.2 FT. BACKFILL MATERIAL: BENTONITE 50.9 FT - 46.1 FT.

LOG OF BORING NUMBER: 04591

CHEMICAL SAMP / GRADATIONAL S.	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50%	100% 0% 100%		5898	50				
					5897	51				Total depth at 50.9 ft.
					5896	52				
					5895	53				
					5894	54				
					5893	55				
					5892	56				
					5891	57				
					5890	58				
					5889	59				
						60				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 50.1	GROUND ELEVATION (FT):	5944.70	PROJECT NUMBER:	OU2RI
NORTH: 749342.45	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST: 2088316.08	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/25/91

LOG OF BORING NUMBER: 04691

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 33.4 FT. - 30.1 FT. BACKFILL MATERIAL: BENTONITE 50.1 FT. - 45.9 FT.

DEPTH | CHEMICAL SAMPL | GRADATIONAL SA | SAMPLE NUMBER | SAMPLE GRAIN SIZE (0% 50% 100%) | PERCENT RECOVERY (0% 100%) | RECOVERY/INTERVAL | DATUM(FT) | DEPTH(FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION

RECOVERY/INTERVAL	DATUM(FT)	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			Top soil, start of boring at 0.90 ft.
0.00 /0.90	5944		No recovery for this interval.
0.20 /2.00	5943	GP	Gravel with some sand - dusky brown (5YR2/2), maximum gravel size 1 1/2" diameter, average size 1/2" diameter, coarse- to fine-grained sand, sub-angular to sub-rounded, poorly graded, low plasticity, gravel primarily granite and quartzite with some caliche coating, dominant lithology sand quartz with some quartzite rock fragments and trace K-spar and mica, no apparent bedding, dry. 80% gravel, 18% sand, 2% silt.
	5942		No recovery for this interval.
1.40 /2.00	5941	SW	Gravelly Sand with some silt - light brown (5YR5/6), coarse- to fine-grained sand, maximum gravel size 3/4" diameter, average size 1/4" diameter, well graded, angular, low plasticity, dominant lithology sand quartz with some K-spar and rock fragments, trace mica and dark minerals, iron staining on grains, some caliche, gravel primarily granite, no apparent bedding, dry. 14% gravel, 76% sand, 9% silt, 1% clay
	5940		No recovery for this interval.
1.80 /1.90	5939	SM	Silty Sand with some gravel - dark yellowish brown (10YR4/2), coarse- to fine-grained sand, maximum gravel size 1 1/2" diameter, average size 1/2", angular to sub-angular, well graded, medium plasticity, dominant lithology sand quartz with trace K-spar and mica, gravel primarily quartzite, trace iron staining on grains, abundant caliche throughout interval, no apparent bedding, moist. 20% gravel, 50% sand, 24% silt, 6% clay
	5938		No recovery for this interval.
1.70 /2.10	5937	SM	Silty Sand with some gravel - dark yellowish brown (10YR4/2) as described above.
	5936		No recovery for this interval.
1.70 /2.00	5935	GW	Sandy Gravel - moderate yellowish brown (10YR5/4), maximum gravel size 2 1/2" diameter, average size 1/2", coarse- to fine-grained sand, well graded, sub-angular to sub-rounded gravel, sand sub-angular, low plasticity, gravel primarily

DEPTH: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 50.1	GROUND ELEVATION (FT):	5944.70	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749342.45	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	04691
EAST:	2088316.08	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/25/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 33.4 FT. - 30.1 FT. BACKFILL MATERIAL: BENTONITE 50.1 FT. - 45.9 FT.

CHEMICAL SAMPL / GRADATIONAL S / DEPTH	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					5934	10				quartzite and granite, dominant lithology sand quartz with some K-spar, mica and trace rock fragments, some iron staining on grains, trace caliche throughout interval, no apparent bedding, moist, increase in sand at 10.0-10.5'. 64% gravel, 32% sand, 4% clay
						11				No recovery for this interval.
				1.30 /2.00	5933	12			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, increase in caliche at 12.5-12.9', cobble size granite at 13.4-13.7', increase in caliche at 13.8-14.9'.
					5932	13				
				1.90 /2.00	5931	14				
					5930	15				No recovery for this interval.
				0.25 /1.90	5929	16				
					5928				GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above
						17				No recovery for this interval.
				0.90 /2.10	5927	18			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above
					5926	19				No recovery for this interval.
				1.70 /2.00	5925	20			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, increase in sand and caliche at 19.9-20.9'

STATE PLANE COORDINATE		TOTAL DEPTH (FT) 50.1	GROUND ELEVATION (FT)	5944.70	PROJECT NUMBER	OU2RI	LOG OF BORING NUMBER
NORTH	749342.45	AREA SE TRENCHES	CASING DIAMETER (IN)	2.0	GEOLOGIST	L.A. GUST	04691
EAST	2088316.08	LOCATOR NUMBER H15	BOREHOLE DIAMETER (IN)	10.0	DATE DRILLED	09/25/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 33.4 FT. - 30.1 FT. BACKFILL MATERIAL: BENTONITE 50.1 FT - 45.9 FT.

DEPTH	CHEMICAL SAMPL GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			0% 50%	100% 0% 100%			20				
						5924	21				No recovery for this interval.
					1.70 /2.00	5923	22			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, increase in sand and caliche at 21.7-22.9', sandstone rock at 21.7 ft.
						5922	23				No recovery for this interval
					0.80 /2.00	5921	24			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, increase in iron staining at 24.2-24.6'
						5920	25				No recovery for this interval
					0.80 /2.00	5919	26			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, increase in iron staining at 26.1-26.4'
					2.00 /2.00	5918	27			SC	Clayey Sand with some gravel - moderate olive brown (5Y4/4) to light olive (10Y5/4), coarse- to fine-grained sand, maximum gravel size 1/2" diameter, average size 1/4" diameter, poorly graded, sub-angular to sub-rounded, medium plasticity, dominant lithology sand quartz with some K-spar, arkosic and quartzite rock fragments, gravel primarily granite and quartzite, trace iron staining on grains, some green mottled clay at 29.1-32.6', trace carbonaceous material, no apparent bedding, moist, clay like appearance 8% gravel, 79% sand, 3% silt, 10% clay
						5917	28				
						5916	29				
					2.00 /2.10	5915	30				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 50.1	GROUND ELEVATION (FT):	5944.70	PROJECT NUMBER:	OU2RI
NORTH: 749342.45	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST: 2088316.08	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/25/91

LOG OF BORING NUMBER: 04691

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 33.4 FT. - 30.1 FT. BACKFILL MATERIAL: BENTONITE 50.1 FT. - 45.9 FT.

CHEMICAL SAMPL
GRADATIONAL S
SAMPLE NUMBER
TH
DEPTH

SAMPLE GRAIN SIZE: 0% 50%

PERCENT RECOVERY: 100% 0% 100%

RECOVERY/INTERVAL: 2.00/1.90; 2.00/2.00; 1.50/1.90; 1.40/2.10; 2.00/2.00

DATUM (FT): 5914, 5913, 5912, 5911, 5910, 5909, 5908, 5907, 5906, 5905

DEPTH (FT): 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40

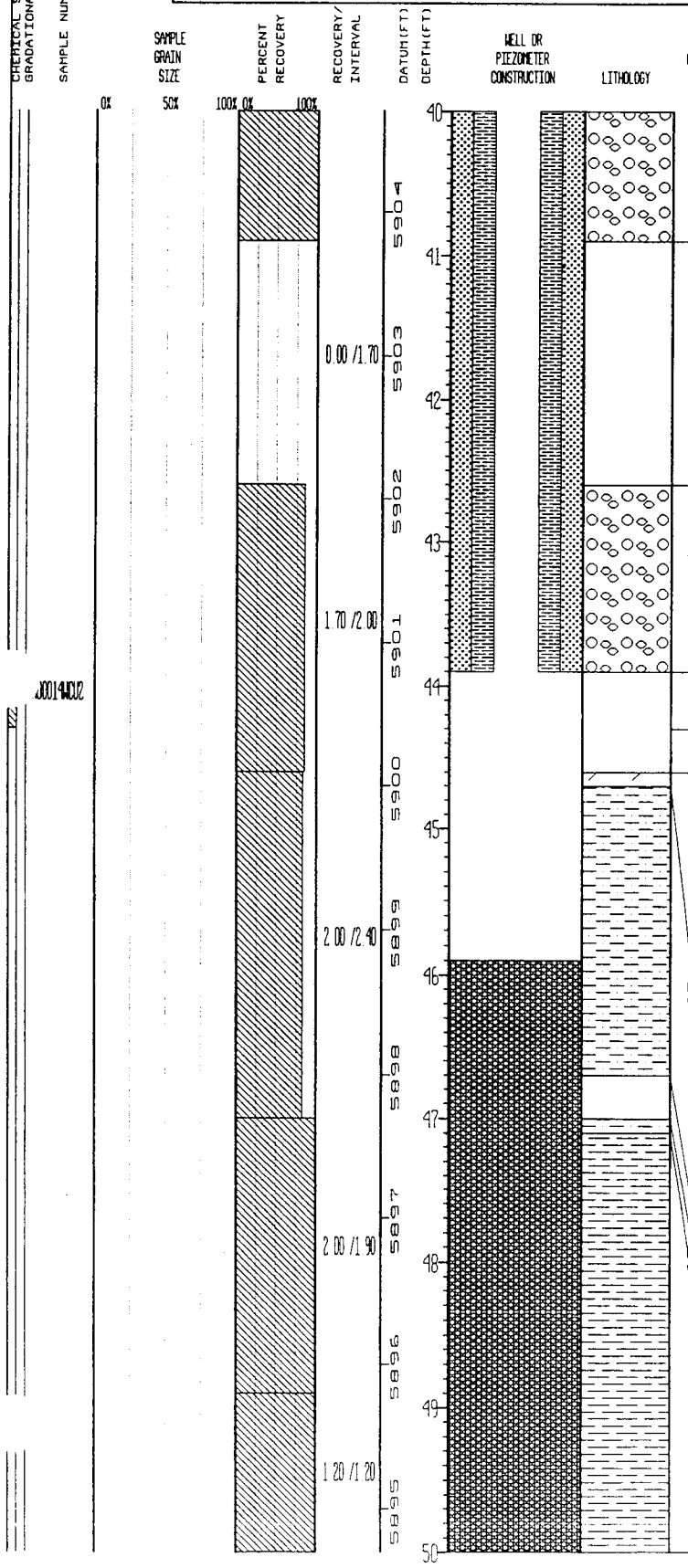
WELL OR PIEZOMETER CONSTRUCTION

LITHOLOGY

UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
GW	Sandy Gravel - moderate yellowish brown (10YR5/4), maximum gravel size 2 1/2" diameter, average size 1/2", coarse- to fine-grained sand, sub-angular, well graded, low plasticity, gravel primarily quartzite and granite, dominant lithology sand quartz with some K-spar and mica, trace rock fragments and dark minerals, trace iron staining on grains and trace carbonaceous material, moist, pale olive (10Y6/2) clay at 32.5-34.9' 65% gravel, 32% sand, 3% silt
	No recovery for this interval
GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, increase in sand and iron staining at 35.9-36.1'
	No recovery for this interval
GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, increase in carbonaceous material and limonite at 38.9-39.7', increase in sand at 38.9-40.0'

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 50.1	GROUND ELEVATION (FT):	5944.70	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749342.45	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	04691
EAST:	2088316.08	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/25/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 33.4 FT. - 30.1 FT. BACKFILL MATERIAL: BENTONITE 50.1 FT. - 45.9 FT.



	No recovery for this interval.
GW:	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, increase in size and amount of gravel at 40.9-43.0', increase in sand at 43.6-43.9' Top of bedrock at 43.9 ft
	VOA sample obtained from this interval
	No recovery for this interval
SILTY CLAYSTONE	Silty Claystone with some sand - grayish olive (10Y4/2), very fine-grained sand, well sorted, sub-angular, approximately 15% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with trace dark minerals, trace iron staining on grains, trace limonite and carbonaceous material, no apparent bedding or fracturing, moist, weathered. 14% sand, 17% silt, 69% clay
SANDY CLAYSTONE	Sandy Claystone - light olive brown (5Y5/6), very fine-grained sand, well sorted, sub-angular, argillaceous cement, approximately 15% porosity, slightly friable, dominant lithology sand quartz with trace mica and dark minerals, trace iron staining on grains, trace carbonaceous material and limonite throughout interval, no apparent bedding or fracturing, moist, interbedded sandstone lense at 46.1-46.2' 18% sand, 4% silt, 78% clay
	No recovery for this interval
SANDY CLAYSTONE	Sandy Claystone - light olive brown (5Y5/6), as described above
CLAYSTONE	Claystone - grayish black (N2) to medium dark gray (N4), very fine-grained sand, well sorted, sub-angular, approximately 5% porosity, argillaceous cement, slightly friable, dominant lithology sand quartz, trace iron staining on grains, some carbonaceous material throughout interval, no apparent bedding or fracturing, moist, abundant immature coal with trace limonite at 47.8-48.9' 4% sand, 5% silt, 91% clay

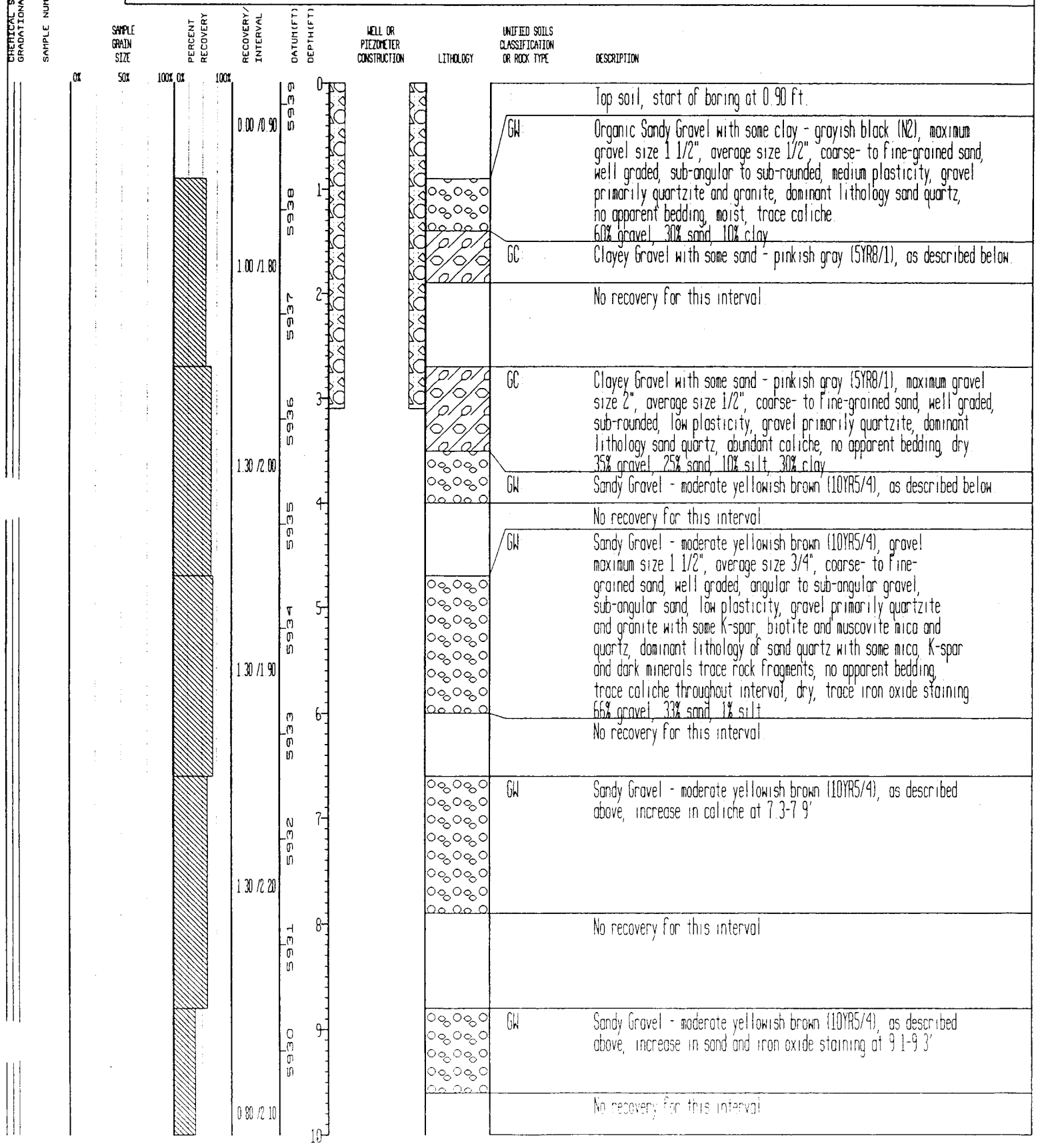
STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 50.1	GROUND ELEVATION (FT):	5944.70	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749342.45	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	04691
EAST:	2088316.08	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/25/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 33.4 FT. - 30.1 FT. BACKFILL MATERIAL: BENTONITE 50.1 FT. - 45.9 FT.

CHEMICAL SAMPL / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50%	100% 0% 100%			50				Total depth at 50.1 ft
					5894	51				
					5893	52				
					5892	53				
					5891	54				
					5890	55				
					5889	56				
					5888	57				
					5887	58				
					5886	59				
					5885	60				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 45.8	GROUND ELEVATION (FT):	5939.20	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749439.15	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	04891
EAST:	2088680.33	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/20/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 29.0 FT. - 26.0 FT. BACKFILL MATERIAL: BENTONITE 45.8 FT. - 41.7 FT.



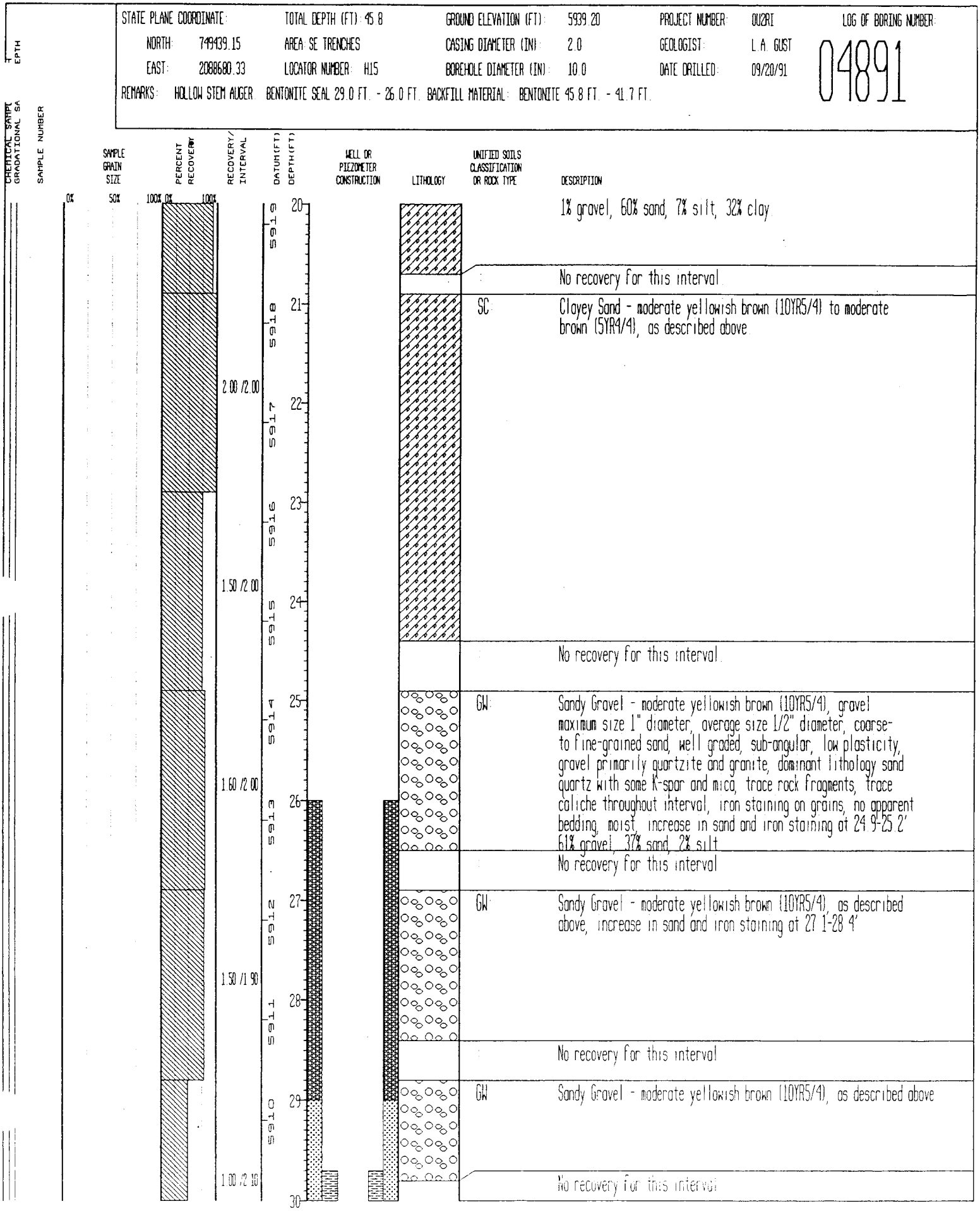
STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 45.8	GROUND ELEVATION (FT):	5939.20	PROJECT NUMBER:	002RI	LOG OF BORING NUMBER:
NORTH:	749439.15	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	04891
EAST:	2088680.33	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/20/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 29.0 FT. - 26.0 FT. BACKFILL MATERIAL: BENTONITE 45.8 FT. - 41.7 FT.

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					5929	10				
				1.20 /1.80	5928	11			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above.
					5927	12				No recovery for this interval
					5926	13			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above.
				0.60 /2.10	5925	14				No recovery for this interval
				1.20 /2.00	5924	15			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, increase in sand and iron staining at 14.8-15.1'.
					5923	16				No recovery for this interval
				0.90 /1.70	5922	17			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above.
					5921	18				No recovery for this interval
				2.20 /2.40	5920	19			SC	Clayey Sand - moderate yellowish brown (10YR5/4) to moderate brown (5YR4/4), fine-grained gravel, coarse- to fine-grained sand, poorly graded, sub-angular to sub-rounded, low plasticity, dominant lithology sand quartz with some K-spar and rock fragments, trace biotite and muscovite mica, trace fibrous mineral, trace carbonaceous material, some iron staining on grains, no apparent bedding, moist
						20				

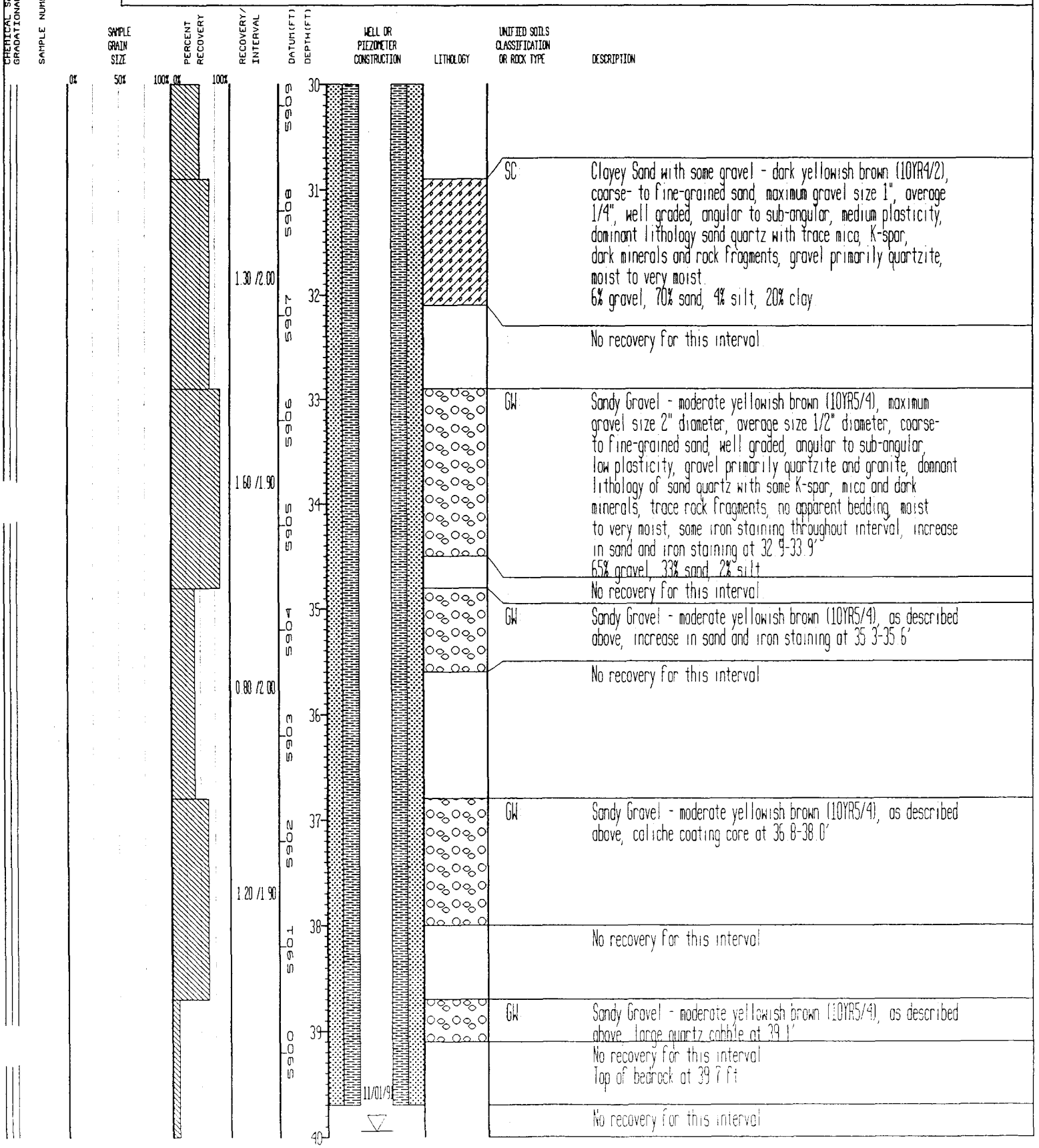
STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 45.8	GROUND ELEVATION (FT):	5939.20	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749439.15	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	04891
EAST:	2088680.33	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/20/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 29.0 FT. - 26.0 FT. BACKFILL MATERIAL: BENTONITE 45.8 FT. - 41.7 FT.



STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 45.8	GROUND ELEVATION (FT): 5939.20	PROJECT NUMBER: OU2RI	LOG OF BORING NUMBER:
NORTH: 749439.15	AREA: SE TRENCHES	CASING DIAMETER (IN): 2.0	GEOLOGIST: L.A. GUST	04891
EAST: 2088680.33	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 09/20/91	

REMARKS: HOLLOW STEM AUGER BENTONITE SEAL 29.0 FT. - 26.0 FT BACKFILL MATERIAL: BENTONITE 45.8 FT. - 41.7 FT.



STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 45.8	GROUND ELEVATION (FT):	5939.20	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH: 749439.15	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	04891
EAST: 2088680.33	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/20/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 29.0 FT. - 26.0 FT. BACKFILL MATERIAL: BENTONITE 45.8 FT. - 41.7 FT.

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% – 50% – 100%)	PERCENT RECOVERY (0% – 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
				0.40/3.00	5899	40				
					5898	41				
				2.00/2.00	5897	42			SILTY CLAYSTONE	Silty Claystone with some sand - light olive gray (5Y5/2), very fine-grained sand, moderate to well sorted, sub-angular, approximately 15% porosity, argillaceous cement, slightly friable, dominant lithology sand quartz with trace mica and dark minerals, trace iron staining on grains, no apparent bedding or fracturing, moist, limonite staining throughout interval, trace of carbonaceous material, weathered, increased limonite at 43.1-43.2' 8% sand, 27% silt, 65% clay
					5896	43				
	BH000124C02									VOA sample obtained from this interval
				2.10/2.10	5895	44			SILTY CLAYSTONE	Silty Claystone with some sand - light olive gray (5Y5/2) as described above, increased limonite and trace sand lense at 43.7-45.2', slight horizontal bedding at 45.2', increase in clay content at 45.5-45.8'
					5894	45				
					5893	46				Total depth at 45.8 ft
					5892	47				
					5891	48				
					5890	49				
						50				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 46.1	GROUND ELEVATION (FT):	5936.94	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749551.13	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	04991
EAST:	2088844.09	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/13/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 26.6 FT. - 29.7 FT. BACKFILL MATERIAL: BENTONITE 46.1 FT. - 42.3 FT. OFFSET TO BOREHOLE 11191
CUTTINGS SAMPLES OBTAINED EVERY TWO FEET IN JARS. CONTINUOUS CORE SAMPLE COLLECTED FROM 37.5 TO 46.1 FT.

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					5936	0				Top soil, start of boring at 0.90 ft.
					5935	1				Sandy Gravel - light brownish red (10R4/6), gravel up to 1 1/2", sub-rounded, quartz gravel and coarse- to fine-grained sand, no bedding, dry, clayey, organic.
					5934	2				
					5933	3				Sandy Gravel - moderate yellowish brown (10YR5/4), gravel to 2 1/2", poorly graded, sub-rounded, quartz, dark to medium gray (N3), no apparent bedding, dry to moist
					5932	4				
					5931	5				
					5930	6				
					5929	7				
					5928	8				
					5927	9				
						10				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 46.1	GROUND ELEVATION (FT):	5936.94	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749551.13	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	04991
EAST:	2088844.09	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/13/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 26.6 FT. - 29.7 FT. BACKFILL MATERIAL: BENTONITE 46.1 FT. - 42.3 FT. OFFSET TO BOREHOLE 11191
CUTTINGS SAMPLES OBTAINED EVERY TWO FEET IN JARS, CONTINUOUS CORE SAMPLE COLLECTED FROM 37.5 TO 46.1 FT.

CHEMICAL SAMP	GRADATIONAL S.	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
						5926	10				
						5925	11				
						5924	12				
						5923	13				
						5922	14				
						5921	15				Clayey Sand - moderate yellowish brown (10YR5/4), coarse- to fine-grained sand, well graded, sub-rounded, clay and white caliche binding sand, few quartz pebbles to 3/4", moist
						5920	16				
						5919	17				
					0.00 /37.50	5918	18				
						5917	19				
							20				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 46.1	GROUND ELEVATION (FT):	5936.94	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749551.13	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	04991
EAST:	2088844.09	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/13/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 26.6 FT. - 29.7 FT. BACKFILL MATERIAL: BENTONITE 46.1 FT. - 42.3 FT. OFFSET TO BOREHOLE 11191
CUTTINGS SAMPLES OBTAINED EVERY TWO FEET IN JARS, CONTINUOUS CORE SAMPLE COLLECTED FROM 37.5 TO 46.1 FT.

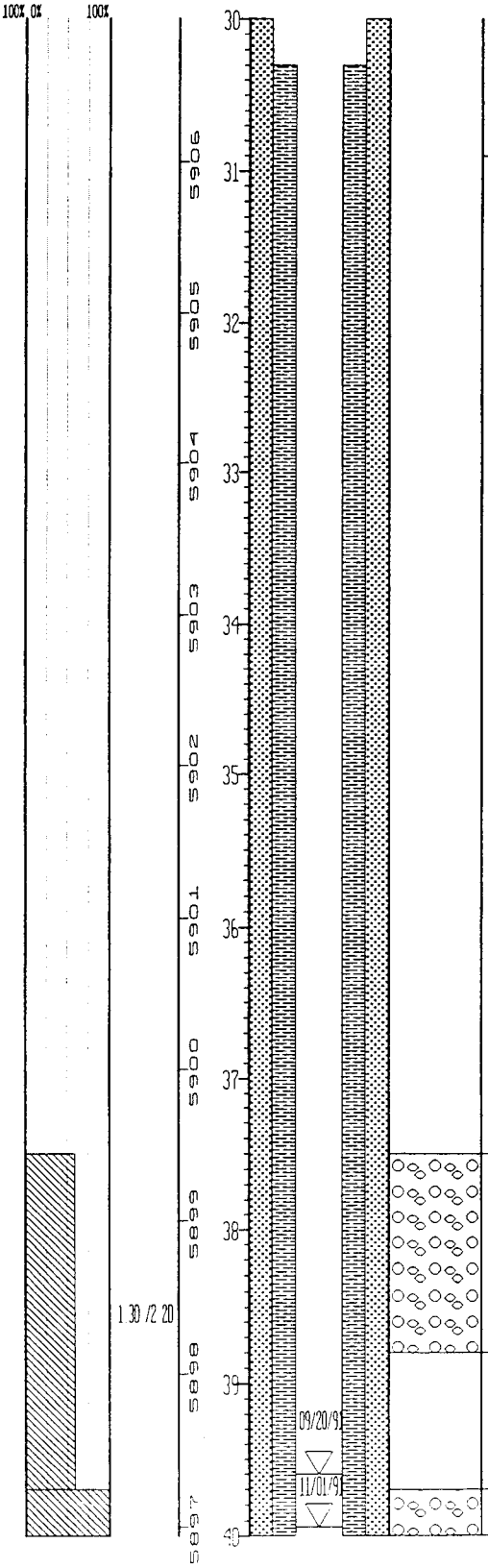
CHEMICAL SAMPL / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					5916	20–21				Gravelly Sand - moderate yellowish brown (10YR5/4), coarse- to medium- to fine-grained sand, sub-rounded, with gravel mixed, no bedding
					5915	22				
					5914	23				
					5913	24				Sandy Gravel - moderate yellowish brown (10YR5/4), maximum size gravel 2 1/2" diameter, poorly graded, sub-rounded, gravel primarily quartz, no apparent bedding, dry to moist
					5912	25				
					5911	26				
					5910	27				Sandy Clay - dark yellowish brown (10YR4/2), coarse to fine-grained sand, sub-rounded
					5909	28				
					5908	29				
					5907	30				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 46.1	GROUND ELEVATION (FT):	5936.94	PROJECT NUMBER:	0U2RI
NORTH: 749551.13	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST: 2088844.09	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/13/91

LOG OF BORING NUMBER: 04991

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 26.6 FT. - 29.7 FT. BACKFILL MATERIAL: BENTONITE 46.1 FT. - 42.3 FT. OFFSET TO BOREHOLE 11191
CUTTINGS SAMPLES OBTAINED EVERY TWO FEET IN JARS. CONTINUOUS CORE SAMPLE COLLECTED FROM 37.5 TO 46.1 FT.

CHEMICAL SAMPLE / GRADATIONAL SAMPLE / DEPTH / SAMPLE NUMBER / SAMPLE GRAIN SIZE (0% 50% 100%) / PERCENT RECOVERY (0% 100%) / RECOVERY/INTERVAL / DATUM (FT) / DEPTH (FT) / WELL OR PIEZOMETER CONSTRUCTION / LITHOLOGY / UNIFIED SOILS CLASSIFICATION OR ROCK TYPE / DESCRIPTION

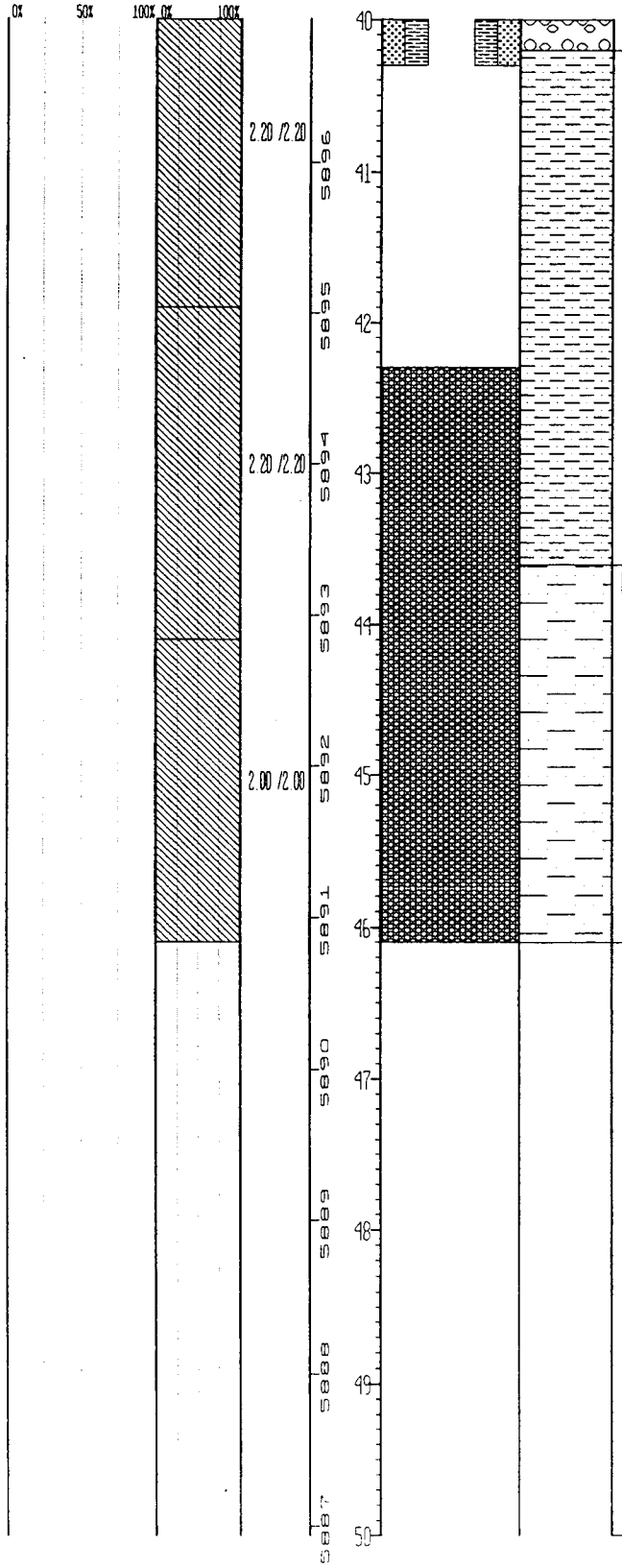


UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	Sandy Gravel - moderate brown (5YR3/4), coarse- to fine-grained gravel, coarse- to very fine-grained sand, well graded, sub-angular to sub-roundeded, low plasticity, dominant lithology quartz, no apparent bedding, moist, iron staining on grains and throughout interval. 66% gravel, 33% sand, 1% fines
GW	Sandy Gravel - moderate brown (5YR3/4), as described above
	No recovery for this interval
GW	Sandy Gravel - moderate brown (5YR3/4), as described above

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 46.1	GROUND ELEVATION (FT):	5936.94	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749551.13	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	04991
EAST:	2088844.09	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/13/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 26.6 FT. - 29.7 FT. BACKFILL MATERIAL: BENTONITE 46.1 FT. - 42.3 FT. OFFSET TO BOREHOLE 11191
CUTTINGS SAMPLES OBTAINED EVERY TWO FEET IN JARS, CONTINUOUS CORE SAMPLE COLLECTED FROM 37.5 TO 46.1 FT.

CHEMICAL SAMPLE
GRADATIONAL SA
DEPTH
SAMPLE NUMBER
SAMPLE GRAIN SIZE (0% 50% 100%)
PERCENT RECOVERY (0% 100%)
RECOVERY/INTERVAL
DATUM (FT)
DEPTH (FT)
WELL OR PIEZOMETER CONSTRUCTION
LITHOLOGY
UNIFIED SOILS CLASSIFICATION OR ROCK TYPE
DESCRIPTION



Top of bedrock at 40.2 ft.

SANDY CLAYSTONE: Sandy Claystone with some silt - moderate yellow brown (10YR5/4), very fine-grained sand, well sorted, sub-rounded to rounded, approximately 15% porosity, argillaceous cement, slightly friable, dominant lithology of sand quartz with trace mica and dark minerals, trace iron staining on sand grains, no apparent bedding or fracturing, dry, weathered. Interbedded sand lenses up to 1" thick throughout interval. 26% sand, 22% silt, 52% clay.

CLAYEY SANDSTONE: Clayey Sandstone with some silt - light olive gray (5Y3/2), fine- to very fine-grained sand, moderately sorted, sub-rounded, approximately 20% porosity, argillaceous cement, moderately to highly friable, dominant lithology sand quartz with trace mica and dark minerals with some iron staining on grains, trace of horizontal bedding and vertical fractures with limonite staining, dry, weathered, trace clay clasts throughout interval. 48% sand, 21% silt, 31% clay.

Total depth at 46.1 ft.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 49.5	GROUND ELEVATION (FT):	5937.63	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749894.38	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	05091
EAST:	2088824.86	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/18/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 33.5 FT. - 30.3 FT. BACKFILL MATERIAL: BENTONITE 49.5 FT. - 46.0 FT.

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY / INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
				0.00 /0.90	5937	0				Top soil, start of boring at 0.90 ft
				1.90 /1.90	5936	1 2			OL	Organic Silty Clay with some gravel and sand - grayish black (N2), coarse- to fine-grained sand, gravel up to 1/2" diameter, poorly graded, sub-angular to sub-rounded, medium plasticity, dominant lithology sand quartz, gravels quartzite, no apparent bedding, moist, abundant roots 20% gravel, 15% sand, 25% silt, 40% clay
					5935	3			ML	Gravelly Silt with some sand - moderate orange pink (5YR8/4), fine-grained sand, gravel up to 1/4" diameter, poorly graded, sub-angular, low plasticity, dominant lithology sand quartz, dominant lithology gravel quartzite, abundant caliche, recrystallized CaCO3 around gravel and throughout interval, no apparent bedding, dry 25% gravel, 10% sand, 60% silt, 5% clay
				1.40 /2.00	5934	4				No recovery for this interval
					5933					
				1.80 /1.80	5932	5 6			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), gravel maximum grain size 2 1/2" diameter, average 1", coarse- to fine-grained sand, well graded, angular to sub-angular gravel, sub-angular sand, low plasticity, gravel primarily quartzite and granite with trace quartz, K-spar and mica, dominant lithology sand quartz with some biotite and muscovite mica and K-spar, trace hornblend and dark minerals, trace quartzite and granite rock fragments, trace clear fibrous mineral, no apparent bedding, some iron staining on sand grains, some caliche throughout interval, moist, weathered, decrease in caliche at 7.4-9.5', increased sand and iron staining at 7.4-9.5' 62% gravel, 36% sand, 2% silt
					5931	7				
				1.00 /2.10	5930					No recovery for this interval
					5929	8				
				1.20 /2.10	5928	9 10			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 49.5	GROUND ELEVATION (FT):	5937.63	PROJECT NUMBER:	OU2RI
NORTH:	749894.38	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST:	2088824.86	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/18/91

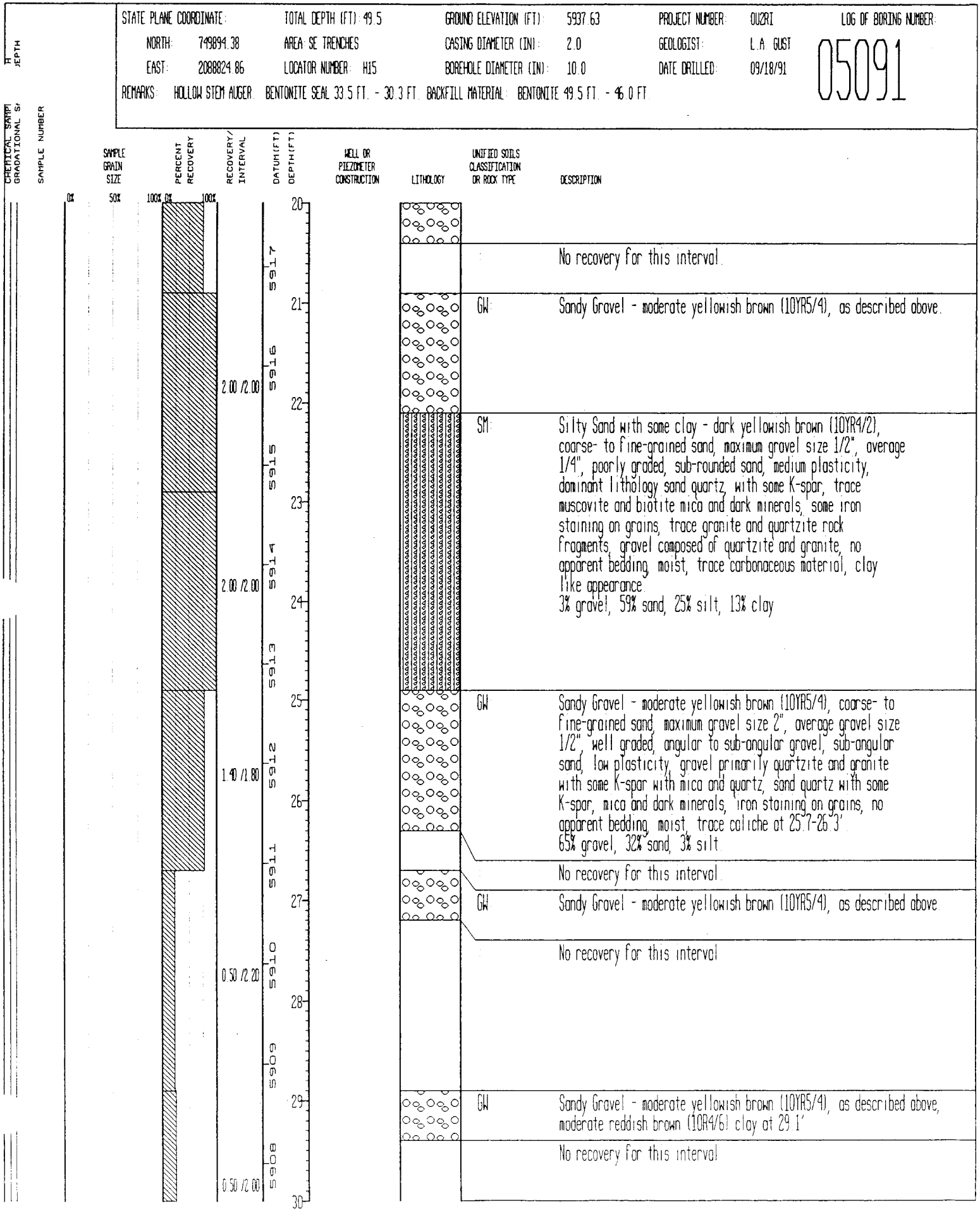
LOG OF BORING NUMBER: 05091

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 33.5 FT. - 30.3 FT. BACKFILL MATERIAL: BENTONITE 49.5 FT. - 46.0 FT.

CHEMICAL SAMPLE / GRADATIONAL SIZE	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
						10				No recovery for this interval.
				1.20 /2.00	5927 5926	11			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, increase in sand and iron staining from 10.8-11.2'.
					5925	12				No recovery for this interval.
				0.50 /2.00	5924 5923	13			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above.
						14				No recovery for this interval.
				2.00 /2.00	5922 5921	15			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, green clay material around gravel at 14.8-15.2', increase in amount and size of gravel at 16.4-16.8', increase in sand and pea size gravel at 16.8-17.7'
				1.00 /2.10	5920	16				
					5919	17				
						18				No recovery for this interval.
				1.50 /2.00	5918	19			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, increase in sand and iron staining at 18.9-21.5'.
						20				

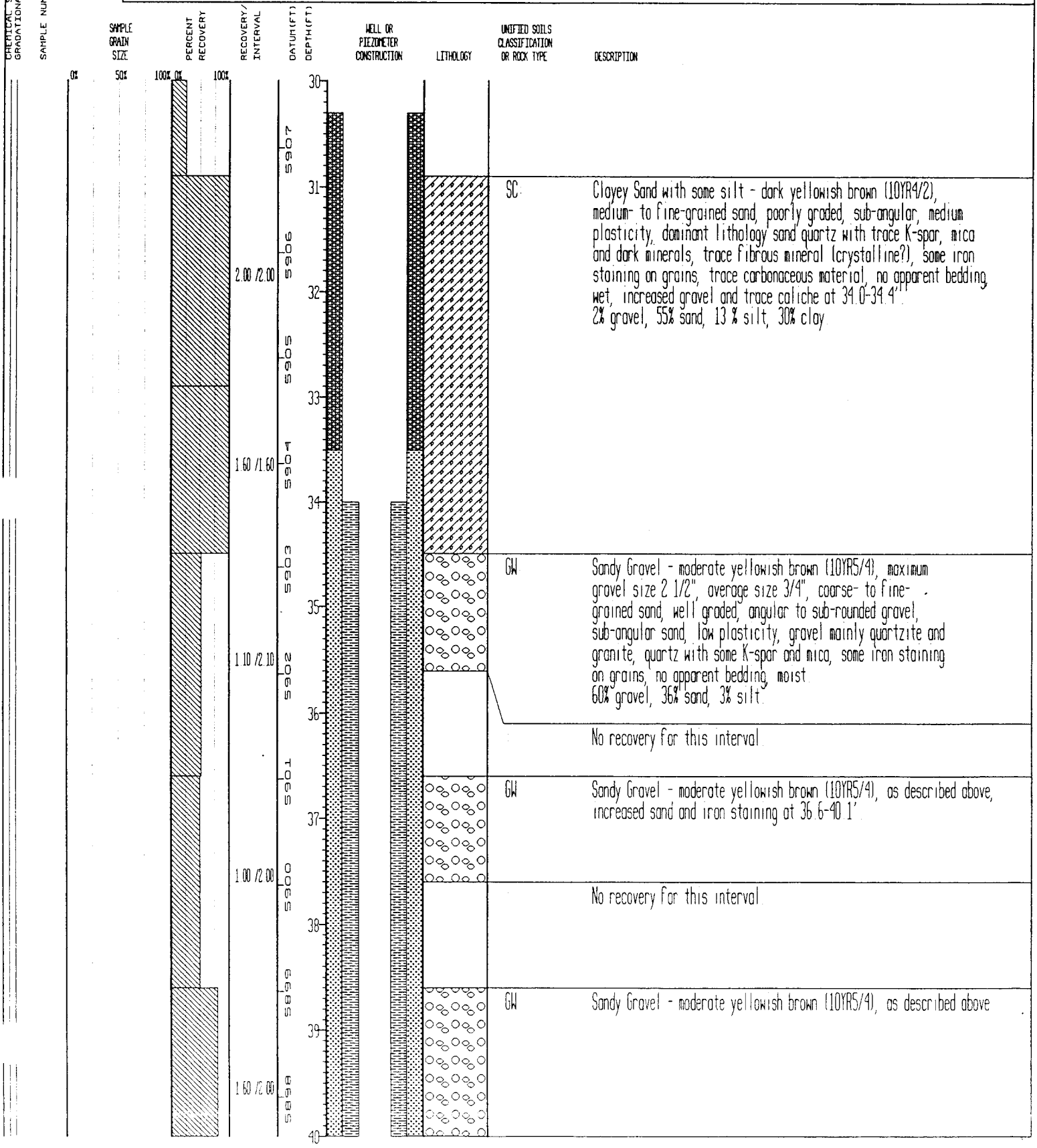
STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 49.5	GROUND ELEVATION (FT):	5937.63	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749894.38	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	05091
EAST:	2088824.86	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/18/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 33.5 FT. - 30.3 FT. BACKFILL MATERIAL: BENTONITE 49.5 FT. - 46.0 FT.



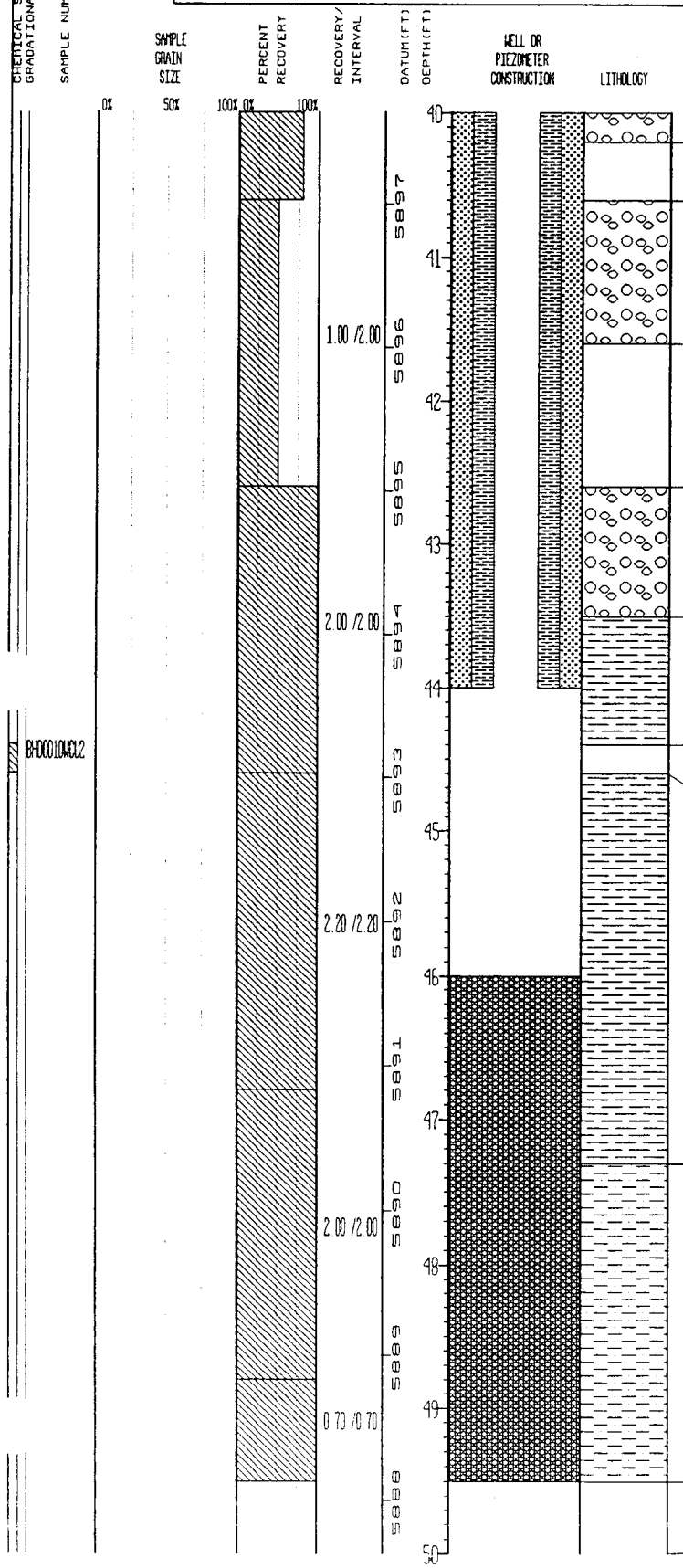
STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 49.5	GROUND ELEVATION (FT):	5937.63	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH: 749894.38	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	05091
EAST: 2088824.86	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/18/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 33.5 FT. - 30.3 FT. BACKFILL MATERIAL: BENTONITE 49.5 FT. - 46.0 FT.



STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 49.5	GROUND ELEVATION (FT):	5937.63	PROJECT NUMBER:	002RI	LOG OF BORING NUMBER:
NORTH:	749894.38	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	05091
EAST:	2088824.86	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/18/91	

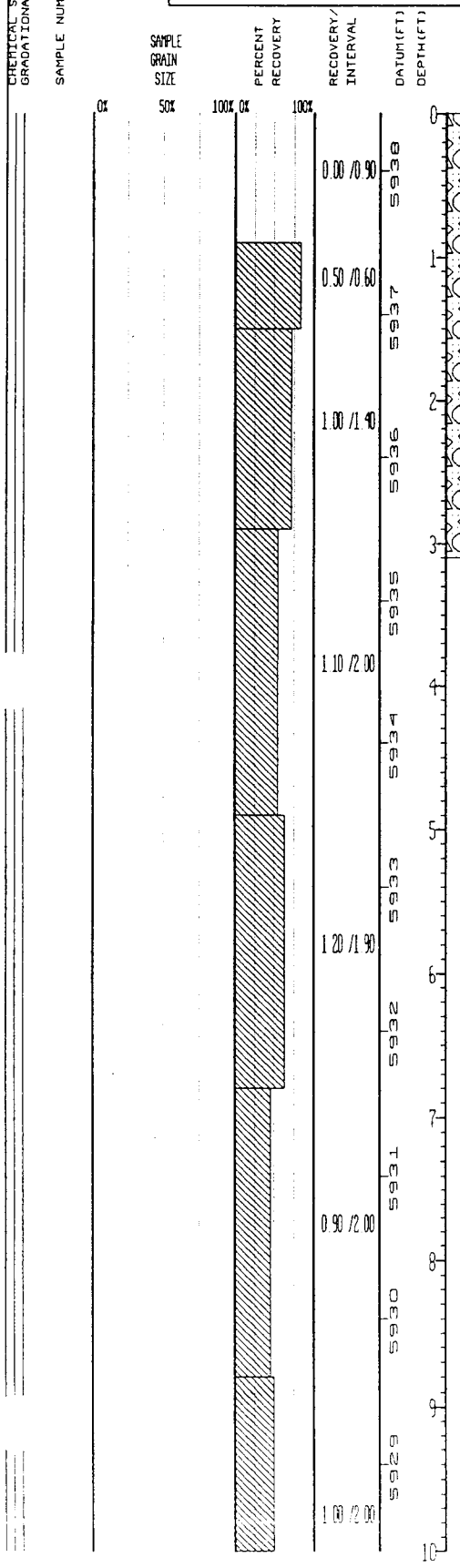
REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 33.5 FT. - 30.3 FT. BACKFILL MATERIAL: BENTONITE 49.5 FT. - 46.0 FT.



	No recovery for this interval.
GW:	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, increase in sand at 41.4-41.6', large cobble of quartz.
	No recovery for this interval.
GW:	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, increase in sand at 42.8-43.2', sample was wet at 42.8-43.5', grayish green (10GY5/2) alteration of gravel at 43.3-43.5' with mild odor. Top of bedrock at 43.5 ft
CLAYSTONE:	Claystone with some silt - light olive gray (5Y6/1), as described below.
	VOA sample obtained from this interval.
CLAYSTONE:	Claystone with some silt - light olive gray (5Y6/1), very fine-grained sand, well sorted, sub-rounded, approximately 10% porosity, argillaceous and silica cement, slightly friable, dominant lithology sand quartz with trace iron staining on grains, horizontal bedding at 44.7-45.3' and 46.4-46.8', healed fractures with iron oxide staining, trace carbonaceous material and clay clasts at 46.6-46.8', iron staining throughout interval, massive, moist, weathered, highly broken at 46.8-47.2'. 6% sand, 10% silt, 84% clay
SANDY CLAYSTONE	Sandy Claystone with some silt - olive gray (5Y4/1), fine- to very fine-grained sand, well sorted, approximately 15% porosity, argillaceous cement, slightly friable, dominant lithology of sand quartz trace mica and dark minerals, trace iron oxide staining grains, trace carbonaceous material, interbedded sandstone lenses with horizontal bedding at 48.6' and 49.2', increase in competency at 48.2', moist, weathered 20% sand, 16% silt, 64% clay
	Total depth at 49.5 ft

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 50.7	GROUND ELEVATION (FT):	5938.40	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749957.40	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	05191
EAST:	2088671.68	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/24/91	

REMARKS: HOLLOW STEM AUGER BENTONITE SEAL 35.5 FT - 31.9 FT. BACKFILL MATERIAL: BENTONITE 50.6 FT. - 48.0 FT.



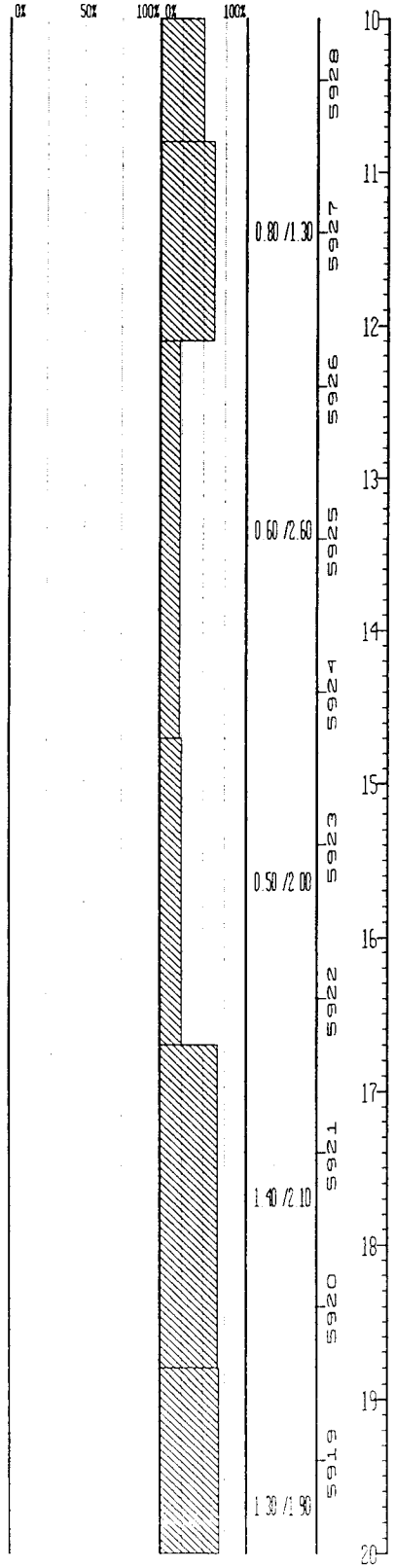
UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	Top soil, start of boring at 0.90 ft.
CL	Sandy Clay with some silt - dark gray (N3), coarse- to fine-grained sand, maximum size gravel 1/4" diameter, poorly graded, sub-angular, low plasticity, dominant lithology sand quartz with some caliche fragments and trace mica and dark minerals, gravel primarily quartzite, abundant caliche throughout interval, no apparent bedding, dry, some roots. 2% gravel, 34% sand, 19% silt, 44% clay
	No recovery for this interval.
CL	Sandy Clay with some silt - dark gray (N3), as described above.
CL	Sandy Clay with some silt - pinkish gray (5Y8/1), coarse- to very fine-grained sand, poorly graded, sub-angular to angular, low plasticity, dominant lithology sand quartz with trace rock fragments, mica, dark minerals and K-spar, abundant caliche throughout interval, no apparent bedding, dry. 18% sand 8% silt, 74% clay
	No recovery for this interval.
CL	Sandy Clay with some silt - pinkish gray (5Y8/1), as described above.
GW	Sandy Gravel - light brown (5YR5/4), as described below.
	No recovery for this interval.
GW	Sandy Gravel - light brown (5YR5/4), maximum size gravel greater than 2 1/2" diameter, average size 1 1/2" diameter, coarse- to fine-grained sand, well graded, sub-angular sand, sub-angular to sub-rounded gravel, low plasticity, gravel primarily quartzite with some granite, dominant lithology sand quartz with some quartzite and granite rock fragments and trace mica, dark minerals and K-spar, trace iron staining on grains, increase to some iron staining at 4.9-5.6', abundant caliche throughout interval and coating on gravels, no apparent bedding, dry to moist. 61% gravel, 29% sand, 3% silt, 7% clay
	No recovery for this interval.
GW	Sandy Gravel - light brown (5YR5/4), as described above.
GW	Sandy Gravel - moderate brown (5YR4/4), maximum size gravel greater than 2 1/2" diameter, average size 1" diameter, coarse- to fine-grained sand, well graded, sub-angular to sub-rounded gravel, sub-angular sand, low plasticity, gravel primarily quartzite with some granite and trace schist, dominant lithology sand quartz with some rock fragments and dark minerals, trace mica and K-spar, some iron staining on grains and throughout interval, trace caliche coating in upper part of interval, no apparent bedding, moist. 69% gravel, 26% sand, 1% silt, 4% clay
	No recovery for this interval.
GW	Sandy Gravel - moderate brown (5YR4/4), as described above, increase in sand and iron staining at 9.0-9.2'

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 50.7	GROUND ELEVATION (FT):	5938.40	PROJECT NUMBER:	0U2RI
NORTH: 749957.40	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST: 2088671.68	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/24/91

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 35.5 FT. - 31.9 FT. BACKFILL MATERIAL: BENTONITE 50.6 FT. - 48.0 FT.

LOG OF BORING NUMBER: 05191

CHEMICAL SAMPLE DEPTH
GRADATIONAL SAMPLE DEPTH
SAMPLE NUMBER

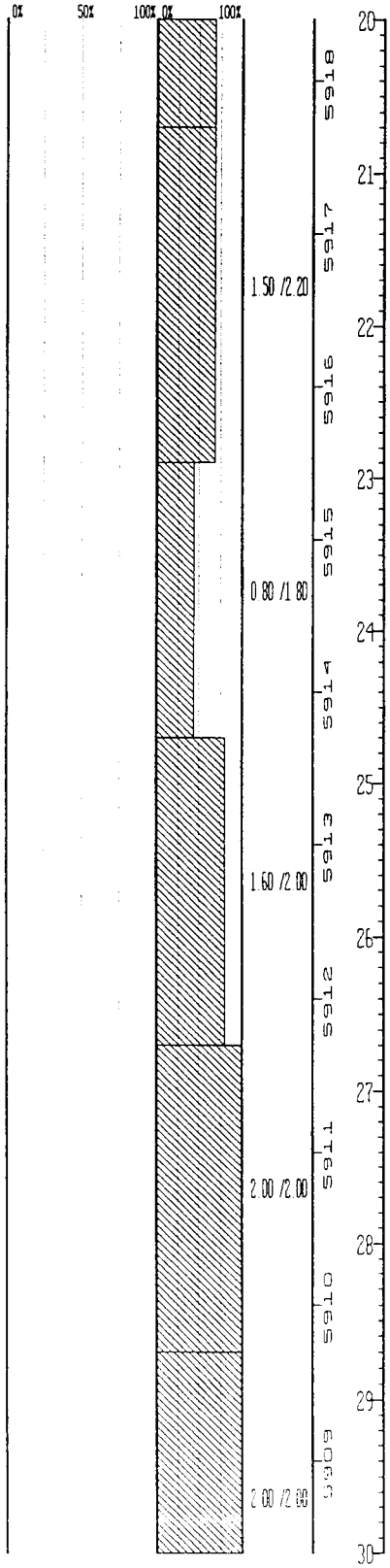


WELL OR PIEZOMETER CONSTRUCTION

LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		No recovery for this interval.
	GW	Sandy Gravel - moderate brown (5YR4/4), as described above, increase in sand and iron at 10.8-11.4'.
		No recovery for this interval.
	GW	Sandy Gravel - moderate brown (5YR4/4), as described above.
		No recovery for this interval.
	GW	Sandy Gravel - moderate brown (5YR4/4), as described above, increase in sand, clay and iron at 14.7-15.2'.
		No recovery for this interval.
	GW	Sandy Gravel - moderate brown (5YR4/4), as described above, increase in sand with some pale green (5G7/2) clay at 16.7-17.7'.
		No recovery for this interval.
	GW	Sandy Gravel - moderate brown (5YR4/4), as described above, increase in sand and iron at 18.8-19.1', increase in sand and pale green (5G7/2) clay at 19.5-19.6'.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 50.7	GROUND ELEVATION (FT):	5938.40	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749957.40	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	05191
EAST:	2088671.68	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/24/91	

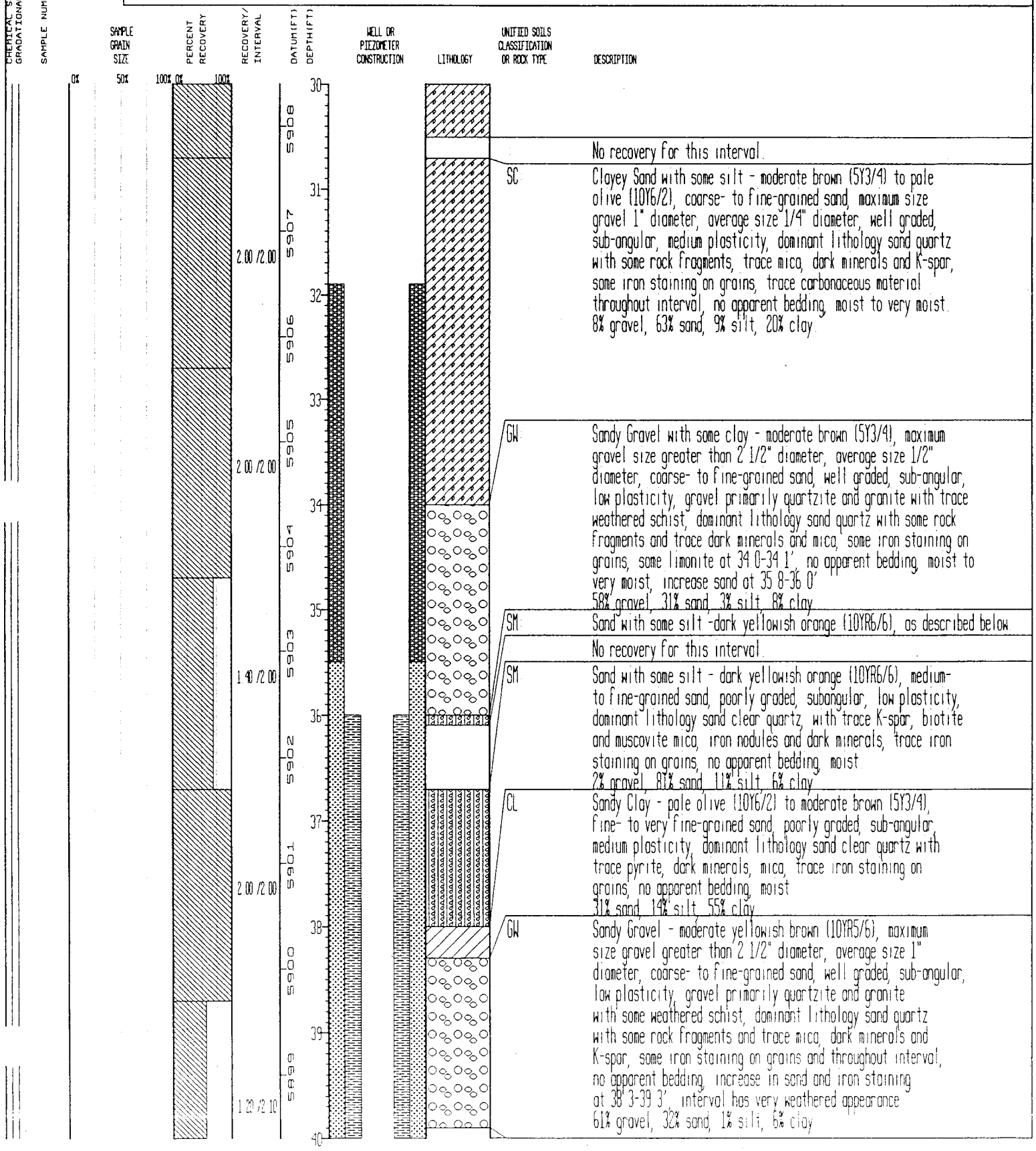
REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 35.5 FT. - 31.9 FT. BACKFILL MATERIAL: BENTONITE 50.6 FT. - 48.0 FT.



WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			No recovery for this interval.
		GW	Sandy Gravel - moderate brown (5YR4/4), as described above, increase in sand and iron at 20.9-21.1'.
			No recovery for this interval.
		GW	Sandy Gravel - moderate brown (5YR4/4), as described above.
			No recovery for this interval.
		GW	Sandy Gravel - moderate brown (5YR4/4), as described above, increase in sand and iron at 24.7-25.4', limonite staining at 25.6'.
			No recovery for this interval.
		SC	Clayey Sand with some silt - moderate brown (5YR4/4), coarse- to fine-grained sand, maximum size gravel 1" diameter, average 1/4" diameter, well graded, sub-angular, medium plasticity, dominant lithology sand clear quartz with trace dark minerals, mica, pyrite, K-spar and granite rock fragments, abundant iron staining on grains, some carbonaceous material throughout interval, gravel primarily quartzite, trace horizontal bedding at 27.9-28.2", moist to very moist, increase in gravel at 26.7-27.2' 5% gravel, 58% sand, 9% silt, 28% clay

STATE PLANE COORDINATE		TOTAL DEPTH (FT): 50.7	GROUND ELEVATION (FT): 5938.40	PROJECT NUMBER: OU2RI	LOG OF BORING NUMBER:
NORTH:	749957.40	AREA: SE TRENCHES	CASING DIAMETER (IN): 2.0	GEOLOGIST: L.A. GUST	05191
EAST:	2088671.68	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 10/24/91	

REMARKS: HOLLOW STEM AUGER BENTONITE SEAL 35.5 FT. - 31.9 FT. BACKFILL MATERIAL: BENTONITE 50.6 FT. - 48.0 FT.



No recovery for this interval.

SC: Clayey Sand with some silt - moderate brown (5Y3/4) to pale olive (10Y6/2), coarse- to fine-grained sand, maximum size gravel 1" diameter, average size 1/4" diameter, well graded, sub-angular, medium plasticity, dominant lithology sand quartz with some rock fragments, trace mica, dark minerals and K-spar, some iron staining on grains, trace carbonaceous material throughout interval, no apparent bedding, moist to very moist. 8% gravel, 63% sand, 9% silt, 20% clay.

GW: Sandy Gravel with some clay - moderate brown (5Y3/4), maximum gravel size greater than 2 1/2" diameter, average size 1/2" diameter, coarse- to fine-grained sand, well graded, sub-angular, low plasticity, gravel primarily quartzite and granite with trace weathered schist, dominant lithology sand quartz with some rock fragments and trace dark minerals and mica, some iron staining on grains, some limonite at 34.0-34.1', no apparent bedding, moist to very moist, increase sand at 35.8-36.0'
58% gravel, 31% sand, 3% silt, 8% clay

SM: Sand with some silt -dark yellowish orange (10YR6/6), as described below

No recovery for this interval.

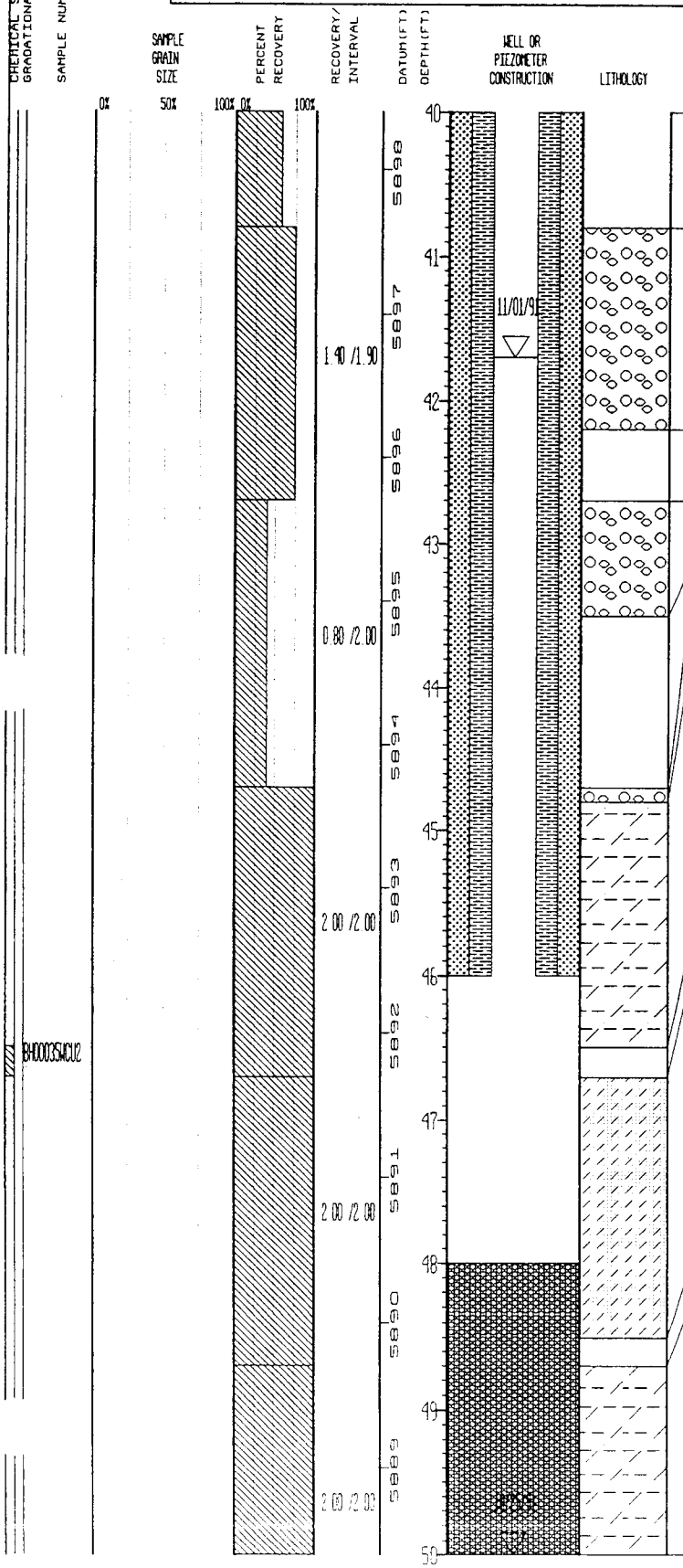
SM: Sand with some silt - dark yellowish orange (10YR6/6), medium- to fine-grained sand, poorly graded, subangular, low plasticity, dominant lithology sand clear quartz, with trace K-spar, biotite and muscovite mica, iron nodules and dark minerals, trace iron staining on grains, no apparent bedding, moist
2% gravel, 87% sand, 11% silt, 6% clay

CL: Sandy Clay - pale olive (10Y6/2) to moderate brown (5Y3/4), fine- to very fine-grained sand, poorly graded, sub-angular, medium plasticity, dominant lithology sand clear quartz with trace pyrite, dark minerals, mica, trace iron staining on grains, no apparent bedding, moist
31% sand, 14% silt, 55% clay

GW: Sandy Gravel - moderate yellowish brown (10YR5/6), maximum size gravel greater than 2 1/2" diameter, average size 1" diameter, coarse- to fine-grained sand, well graded, sub-angular, low plasticity, gravel primarily quartzite and granite with some weathered schist, dominant lithology sand quartz with some rock fragments and trace mica, dark minerals and K-spar, some iron staining on grains and throughout interval, no apparent bedding, increase in sand and iron staining at 38.3-39.3', interval has very weathered appearance
61% gravel, 32% sand, 1% silt, 6% clay

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 50.7	GROUND ELEVATION (FT):	5938.40	PROJECT NUMBER:	0028I	LOG OF BORING NUMBER:
NORTH:	749957.40	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	05191
EAST:	2088671.68	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/24/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 35.5 FT. - 31.9 FT. BACKFILL MATERIAL: BENTONITE 50.6 FT. - 48.0 FT.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	No recovery for this interval.
GW	Sandy Gravel - moderate yellowish brown (10YR5/6), as described above, limonite clast at 40.8', increase in sand and iron staining at 40.8-41.6'
	No recovery for this interval.
GW	Sandy Gravel - moderate yellowish brown (10YR5/6), as described above, moist to saturated at 42.7'
	No recovery for this interval.
GW	Sandy Gravel - moderate yellowish brown (10YR5/6), as described above. Top of bedrock at 44.8 ft.
SILTY CLAYSTONE	Silty Claystone with some sand - light olive (10Y5/4) to dark yellowish orange (10YR6/6), very fine-grained sand, well sorted, sub-angular, approximately 15% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with some dark minerals and trace mica and K-spar, abundant iron staining on grains, some limonite throughout interval, trace carbonaceous material throughout, trace clay clasts throughout, no preferred bedding orientation, no apparent fractures, very moist to saturated, weathered. 10% sand, 36% silt, 54% clay
	VOA sample obtained from this interval
SANDY SILTSTONE	Sandy Siltstone with some clay - light olive (10Y5/4) to dark yellowish orange (10Y6/6), very fine-grained sand, well sorted, sub-angular, approximately 15% porosity, argillaceous cement, dominant lithology sand clear quartz with some dark minerals and trace mica, some iron staining on grains, trace carbonaceous material throughout, abundant limonite throughout, wood fragments at 48.3', very thin laminations of sand, silt and clay, trace horizontal bedding, trace soft sediment deformation, no apparent fractures, very moist, weathered, some clay clast throughout. 27% sand, 51% silt, 22% clay
	No recovery for this interval.
SILTY CLAYSTONE	Silty Claystone with some sand - grayish black (N2), very fine-grained sand, well sorted, sub-angular, approximately 15% porosity, argillaceous cement, slightly friable, dominant lithology clear sand with abundant carbonaceous material and trace mica, trace iron staining on grains, trace limonite throughout interval, abundant carbonaceous material throughout, some immature lignitic coal at 48.7-51.1', trace clay clasts throughout, trace horizontal bedding, no

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 50.7	GROUND ELEVATION (FT):	5938.40	PROJECT NUMBER:	002RI
NORTH: 749957.40	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST: 2088671.68	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/24/91

LOG OF BORING NUMBER: 05191

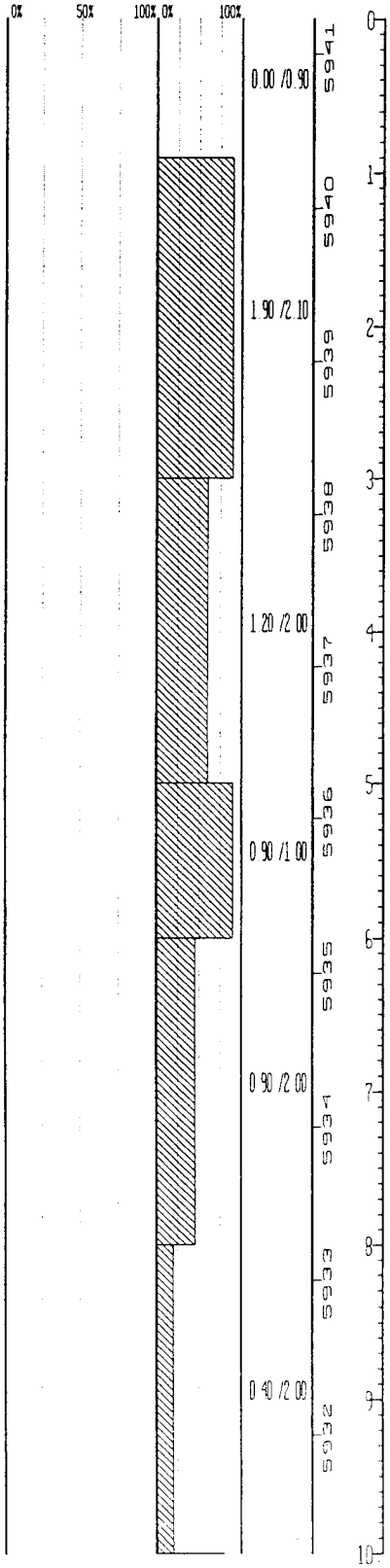
REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 35.5 FT. - 31.9 FT. BACKFILL MATERIAL: BENTONITE 50.6 FT. - 48.0 FT.

CHEMICAL SAMPLE / GRADATIONAL SAMPLE DEPTH	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					5888	50				apparent fractures, trace soft sediment deformation throughout, very moist, sand layer at 50.1 -50.2', unweathered. 22% sand, 31% silt, 47% clay
										No recovery for this interval.
										Total depth at 50.7 ft.
					5887	51				
					5886	52				
					5885	53				
					5884	54				
					5883	55				
					5882	56				
					5881	57				
					5880	58				
					5879	59				
						60				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 41.0	GROUND ELEVATION (FT):	5941.23	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH: 749958.29	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	05291
EAST: 2088377.09	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	01/10/92	

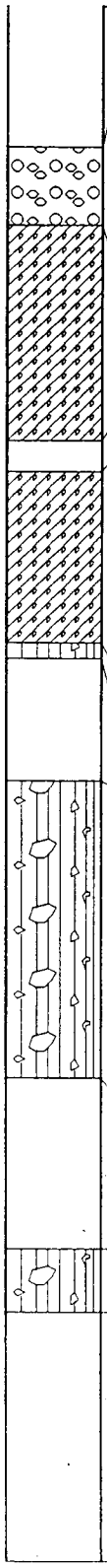
REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 23.0 FT. - 20.3 FT. BACKFILL MATERIAL: BENTONITE 41.0 FT. - 37.1 FT.

CHEMICAL SAMPLE DEPTH
GRADATIONAL SAMPLE DEPTH
SAMPLE NUMBER



WELL OR PIEZOMETER CONSTRUCTION

LITHOLOGY



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	Top soil, start of boring at 0.90 ft.
GW	Sandy Gravel with some silt - grayish brown (5YR3/2), maximum gravel diameter .09', average .03', very fine- to coarse-grained sand, well graded, angular to sub-angular, low plasticity, gravel primarily quartzite and calcrete, abundant organic/carbonaceous material, caliche/calcrete, some quartz, rock fragments, trace mica, irregularly laminated, possible paleosoil horizons, moist. 56% gravel, 36% sand, 6% silt, 2% clay
SC	Clayey Sand with some gravel - moderate orange pink (5YR8/4), as described below.
	No recovery for this interval
SC	Clayey Sand with some gravel - moderate orange pink (5YR8/4), maximum gravel diameter .19', average .1', very fine- to coarse-grained sand, well graded, angular to sub-rounded, medium plasticity, gravel primarily quartzite and calcrete nodules, quartzite has some iron coating, sand contains abundant calcrete quartz, some rock fragments irregularly laminated, possible paleosoil horizons, dry 14% gravel, 67% sand, 2% silt, 17% clay
GM	Sandy Gravel with some silt - grayish orange (10YR7/4), as described below.
	No recovery for this interval
GM	Sandy Gravel with some silt - grayish orange (10YR7/4), maximum gravel diameter > 2.5', average .05', very fine- to coarse-grained sand, well graded, sub-angular to sub-rounded, low plasticity, gravel primarily quartzite, some micaceous phyllite at 5.8', weathered arkosic arenite at 6.4', and weathered quartz rich granite at 15.4', sand contains abundant quartz, feldspar, some rock fragments, iron staining, trace dark minerals, mica, no apparent bedding, increased sand content 5.0-5.5', dry 45% gravel, 43% sand, 8% silt, 4% clay
	No recovery for this interval
GM	Sandy Gravel with some silt - grayish orange (10YR7/4), as described above.
	No recovery for this interval

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 41.0	GROUND ELEVATION (FT):	5941.23	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH: 749958.29	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	05291
EAST: 2088377.09	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	01/10/92	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 23.0 FT. - 20.3 FT. BACKFILL MATERIAL: BENTONITE 41.0 FT. - 37.1 FT.

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
				0.80 /1.00	5931	10			GM	Sandy Gravel with some silt - grayish orange (10YR7/4), as described above.
										No recovery for this interval.
					5930	11			GM	Sandy Gravel with some silt - grayish orange (10YR7/4), as described above.
				0.70 /2.00	5929	12				No recovery for this interval.
					5928	13			GM	Sandy Gravel with some silt - grayish orange (10YR7/4), as described above.
				0.70 /2.00	5927	14				No recovery for this interval.
					5926	15			GM	Sandy Gravel with some silt - grayish orange (10YR7/4), as described above, increased sand content at 15.3-15.5', clast of weathered quartz rich granite at 15.4'
				1.50 /2.00	5925	16			SM	Sand with some silt - moderate yellowish brown (10YR5/4), maximum gravel diameter .07', average .02', fine- to coarse-grained sand, well graded, sub-angular to sub-rounded, low-medium plasticity, gravel primarily quartzite, trace chert or iron stained feldspathoid at 16.4', sand contains abundent quartz, feldspar, some iron staining, rock fragments, organic-carbonaceous material, trace mica, dark minerals, no apparent bedding, moist 1% gravel, 86% sand, 8% silt, 5% clay
					5924	17				No recovery for this interval.
				2.00 /2.00	5923	18			SM	Sand with some silt - moderate yellowish brown (10YR5/4), as described above
				2.00 /2.00	5922	19			SM	Gravelly sand with some silt & clay - moderate brown (5YR4/4), maximum gravel diameter .18', average .02', very fine- to coarse-grained sand, well graded gravel is rounded, sand is sub-rounded, low to medium plasticity, gravel primarily
						20				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 41.0	GROUND ELEVATION (FT):	5941.23	PROJECT NUMBER:	OU2RI
NORTH:	749958.29	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST:	2088377.09	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	01/10/92

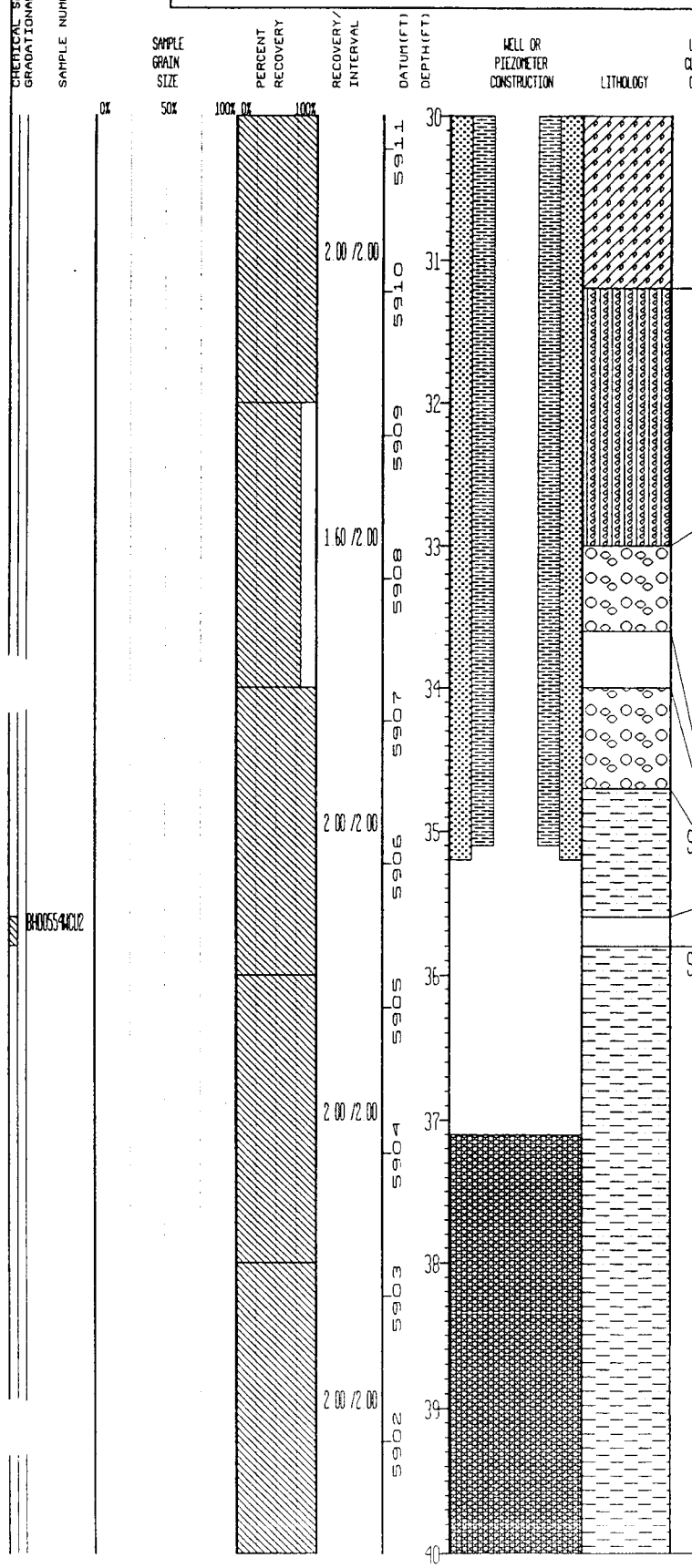
LOG OF BORING NUMBER: 05291

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 23.0 FT. - 20.3 FT. BACKFILL MATERIAL: BENTONITE 41.0 FT. - 37.1 FT.

CHEMICAL SAMP/ GRADATIONAL S.	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50%	100% 0% 100%	2.00 /2.00	5921	20				quartzite and calcrete, trace arkosic arenite, sand contains abundant quartz, feldspar, some iron staining, rock fragments, trace dark minerals, mica, no apparent bedding, decreased gravel/pebbles - increased sand at 20.0-21.6', clasts of silty claystone (possibly bedrock) at 22.9', moist. 11% gravel, 74% sand, 9% silt, 6% clay.
					5920	21				
				2.00 /2.00	5919	22				
					5918	23				
				2.00 /2.00	5917	24			GM	Sandy Gravel - light brown (5YR5/6), maximum gravel diameter > 25", average 1", very fine- to coarse-grained sand well graded, sub-angular to sub-rounded, low plasticity, gravel primarily quartzite, sand contains abundant quartz, some rock fragments feldspar, iron staining, trace dark minerals, mica, no apparent bedding, dry. 56% gravel, 38% sand, 4% silt, 2% clay.
					5916	25				No recovery in this interval.
									GW	Sandy Gravel - light brown (5YR5/6), as described above.
				0.60 /2.00	5915	26				No recovery for this interval.
					5914	27			GW	Sandy Gravel - light brown (5YR5/6), as described above.
										No recovery for this interval.
				0.50 /2.00	5913	28			SC	Clayey Sand with some gravel - light brown (5YR5/6), maximum gravel diameter 1.1", average .02", very fine- to coarse-grained sand, well graded, sand is sub-rounded, gravel is rounded, medium to low plasticity, gravel is primarily quartzite with trace calcrete (.1x.1 nodule at 29.6'), sand contained abundant quartz, some feldspar, rock fragments, iron staining, trace dark minerals, mottled with greenish gray (5GY6/1) silty clay, dry. 7% gravel, 80% sand, 4% silt, 9% clay.
				1.70 /1.00	5912	29				
						30			SC	Clayey Sand - moderate brown (5YR4/4) no gravel, very fine-

STATE PLANE COORDINATE		TOTAL DEPTH (FT) 41.0	GROUND ELEVATION (FT) 5941.23	PROJECT NUMBER 0U2RI	LOG OF BORING NUMBER
NORTH:	749958.29	AREA: SE TRENCHES	CASING DIAMETER (IN): 2.0	GEOLOGIST: J.P. O'BRIEN	05291
EAST:	2088377.09	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 01/10/92	

REMARKS: HOLLOW STEM AUGER BENTONITE SEAL 23.0 FT - 20.3 FT BACKFILL MATERIAL: BENTONITE 41.0 FT - 37.1 FT



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	to medium-grained sand, poorly graded, sub-rounded to rounded, medium plasticity, abundant quartz, some feldspar, rock fragments, dark minerals, trace mica, carbonaceous material, no apparent bedding, moist. 64% sand, 5% silt, 31% clay.
SM	Silty Sand with some clay - moderate yellowish brown (10YR5/4), maximum gravel diameter .05', average .04', very fine- to coarse-grained sand, well graded, angular to sub-angular low-medium plasticity, gravel is primarily quartzite, sand contains abundant quartz, feldspar, some rock fragments, dark minerals, mica, trace iron staining, basal .4' is crudely laminated/stratified, moist. 2% gravel, 73% sand, 18% silt, 7% clay.
GW	Sandy Gravel - moderate yellowish brown (10YR5/4), maximum gravel diameter > 25', average .1', very fine- to coarse-grained sand, well graded, angular to sub-rounded, low plasticity, gravel primarily quartzite, some possible feldspathoid, sand contains abundant quartz, feldspar, some rock fragments, dark minerals, mica, trace iron staining, no apparent bedding, dry. 74% gravel, 23% sand, 2% silt, 1% clay.
	No recovery for this interval.
GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above. Top of bedrock at 34.4'.
SANDY CLAYSTONE	Sandy Claystone with some silt - yellowish gray (5Y7/2) as described below
	VOA sample obtained from this interval.
SANDY CLAYSTONE	Sandy Claystone with some silt - yellowish gray (5Y7/2), very fine- to fine-grained sand, well sorted, sub-rounded, approximately 7% porosity, argillaceous cement, slightly friable, abundant quartz, some iron staining, feldspar, rock fragments, dark minerals, irregularly laminated to mottled, iron staining parrallel to and subhorizontal to laminea (some staining is post depositional), dry. 29% sand, 11% silt, 60% clay.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 41.0	GROUND ELEVATION (FT):	5941.23	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749958.29	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	05291
EAST:	2088377.09	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	01/10/92	

REMARKS: HOLLOW STEM AUGER BENTONITE SEAL 23.0 FT. - 20.3 FT. BACKFILL MATERIAL: BENTONITE 41.0 FT - 37.1 FT.

CHEMICAL SAMPLE DEPTH	GRADATIONAL SAMPLE DEPTH	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					1.00/1.00	5901	40				
						5900	41				Total depth at 41.0 ft.
						5899	42				
						5898	43				
						5897	44				
						5896	45				
						5895	46				
						5894	47				
						5893	48				
						5892	49				
							50				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 48.0	GROUND ELEVATION (FT):	5940.19	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	750152.86	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	05391
EAST:	2088297.63	LOCATOR NUMBER: I15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/24/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 22.0 FT. - 18.9 FT. BACKFILL MATERIAL: BENTONITE 48.0 FT - 37.1 FT.

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					5940	0				Top soil, start of boring at 0.90 ft.
				0.00 /0.90					GW	Gravel with some sand - grayish black (N2), maximum gravel size 1 1/2", average size 1/4", coarse- to fine-grained sand, well graded, angular, medium plasticity, gravel primarily granite and quartzite with abundant caliche coating, dominant lithology sand quartz with some quartzite rock fragments and trace K-spar, no apparent bedding, slightly moist. 81% gravel, 18% sand, 1% silt.
					5939	1				
				0.80 /1.70						No recovery for this interval.
					5938	2			GW	Sandy Gravel - light brown (5YR6/4), maximum gravel size 1" diameter, average 1/2", well graded, coarse- to fine-grained sand, sub-angular sand, sub-rounded gravel, low plasticity, gravel primarily quartzite with some granite, dominant lithology sand quartz with abundant caliche fragments, trace K-spar, some iron staining on grains, caliche coating on gravel and sand, dry, no apparent bedding. 70% gravel, 26% sand, 2% silt, 2% clay.
					5937	3				
				0.90 /1.70						No recovery for this interval.
					5936	4			GW	Sandy Gravel - light brown (5YR6/4), as described above.
										No recovery for this interval.
				0.40 /1.70	5935	5				
					5934	6			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), maximum gravel size 2 1/2" diameter, average 1/2", coarse- to fine-grained sand, well graded, gravel sub-angular to sub-rounded, sand sub-angular, low plasticity, gravel primarily quartzite and granite, some quartz and K-spar, dominant lithology of sand quartz with some K-spar, mica and trace fibrous mineral, some iron staining on grains and trace caliche at 6.0-7.0', no apparent bedding, dry. 66% gravel, 28% sand, 2% silt, 4% clay.
				1.00 /2.00	5933	7				
										No recovery for this interval.
					5932	8			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, increase in sand and iron staining at 9.0-9.5'
				1.00 /1.70	5931	9				
										No recovery for this interval.
						10			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described

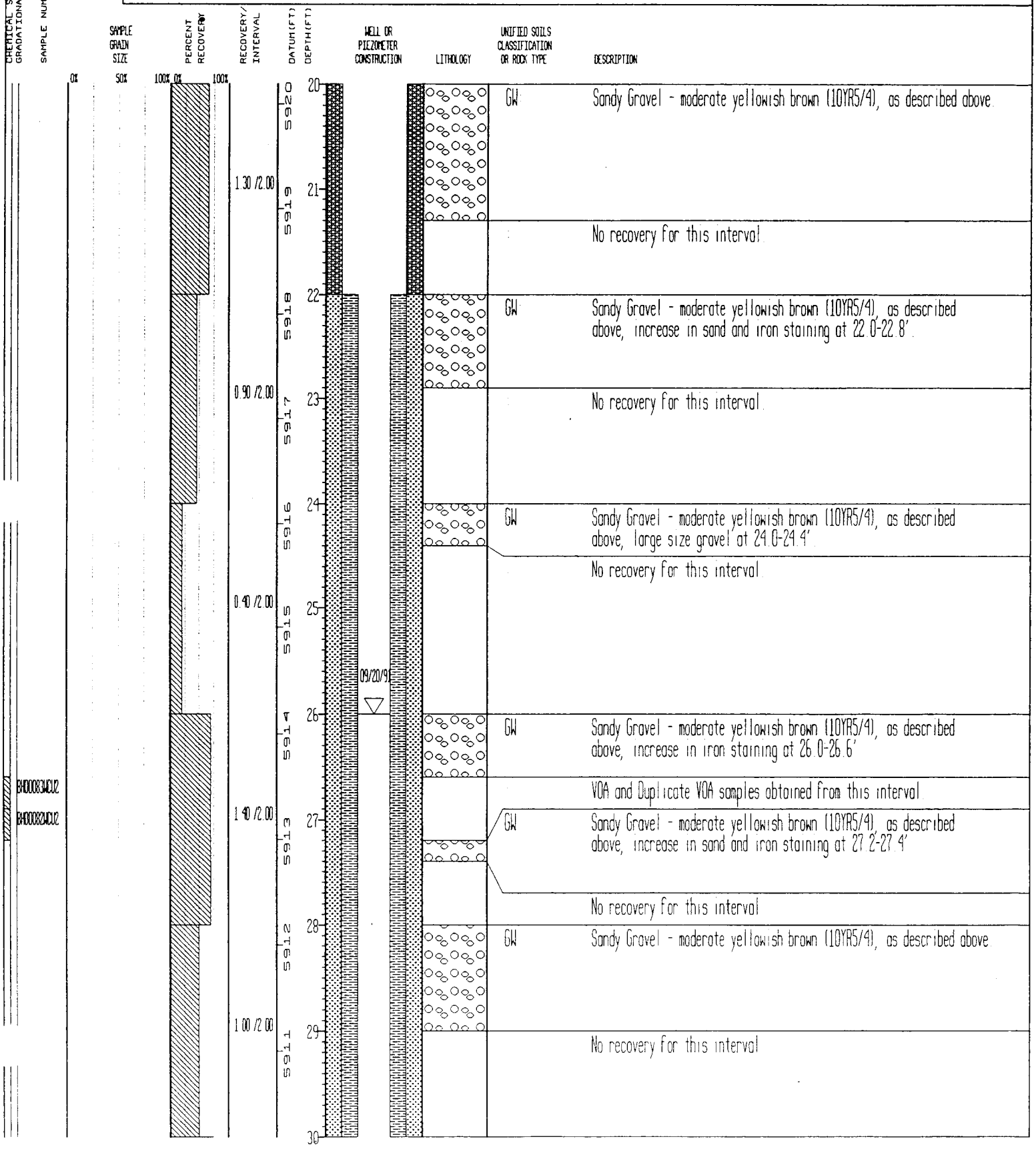
STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 48.0	GROUND ELEVATION (FT):	5940.19	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	750152.86	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	05391
EAST:	2088297.63	LOCATOR NUMBER: I15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/24/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 22.0 FT. - 18.9 FT. BACKFILL MATERIAL: BENTONITE 48.0 FT. - 37.1 FT.

CHEMICAL SAMPL / GRADATIONAL SI	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					5930	10				above, increase in amount of pea-size gravel at 9.7-10.6'
				0.90 /2.20	5929	11				No recovery for this interval
					5928	12			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, increase in sand at 11.9-12.4'
				1.10 /2.20	5927	13				No recovery for this interval
					5926	14			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above
				1.30 /1.90	5925	15				No recovery for this interval
					5924	16			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, increase in the size of gravel at 16.4-17.0'
				1.00 /2.00	5923	17				No recovery for this interval
					5922	18			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, arkosic arenite at 18.0-18.3'
				1.10 /2.00	5921	19				No recovery for this interval
						20				

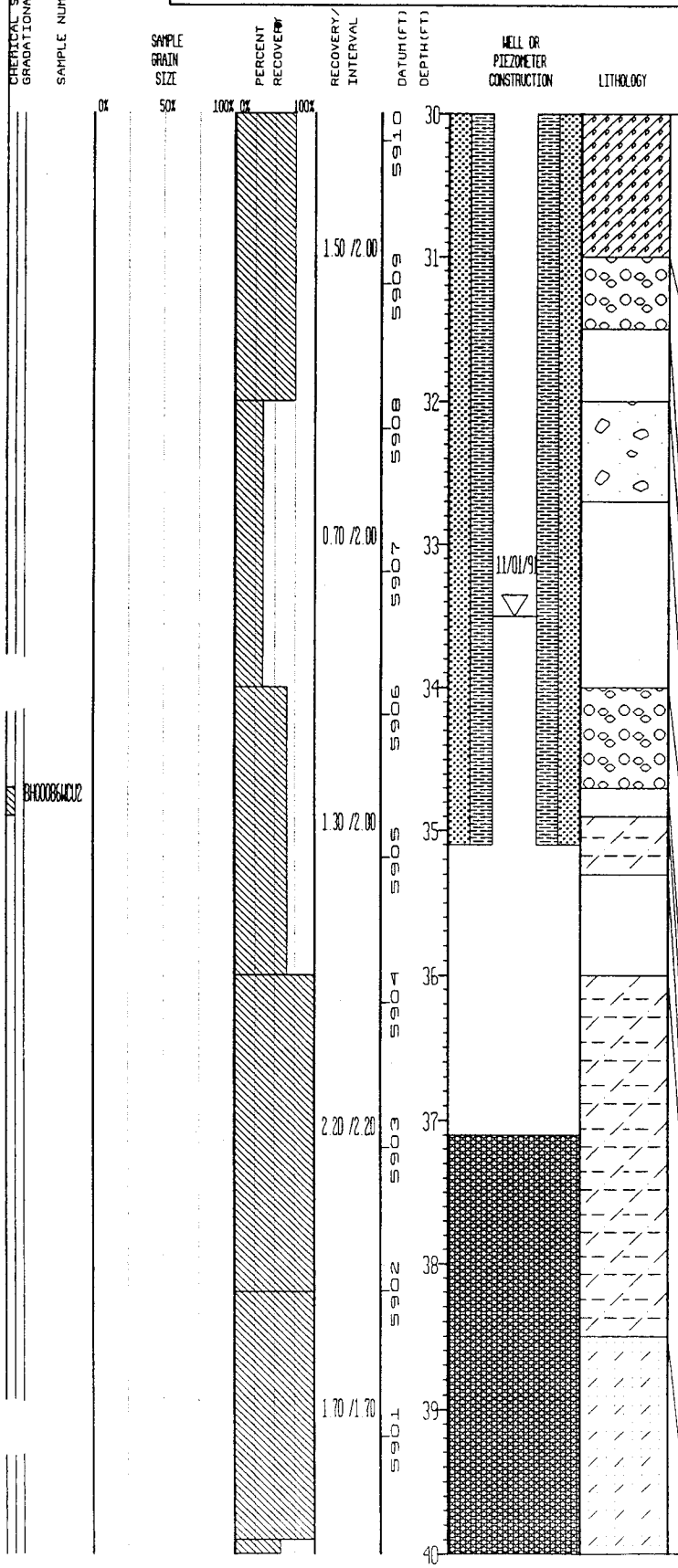
STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 48.0	GROUND ELEVATION (FT): 5940.19	PROJECT NUMBER: OU2RI	LOG OF BORING NUMBER:
NORTH: 750152.86	AREA: NE TRENCHES	CASING DIAMETER (IN): 2.0	GEOLOGIST: L.A. GUST	05391
EAST: 2088297.63	LOCATOR NUMBER: I15	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 09/24/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 22.0 FT. - 18.9 FT. BACKFILL MATERIAL: BENTONITE 48.0 FT. - 37.1 FT.



STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 48.0	GROUND ELEVATION (FT):	5940.19	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	750152.86	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	05391
EAST:	2088297.63	LOCATOR NUMBER: I15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/24/91	

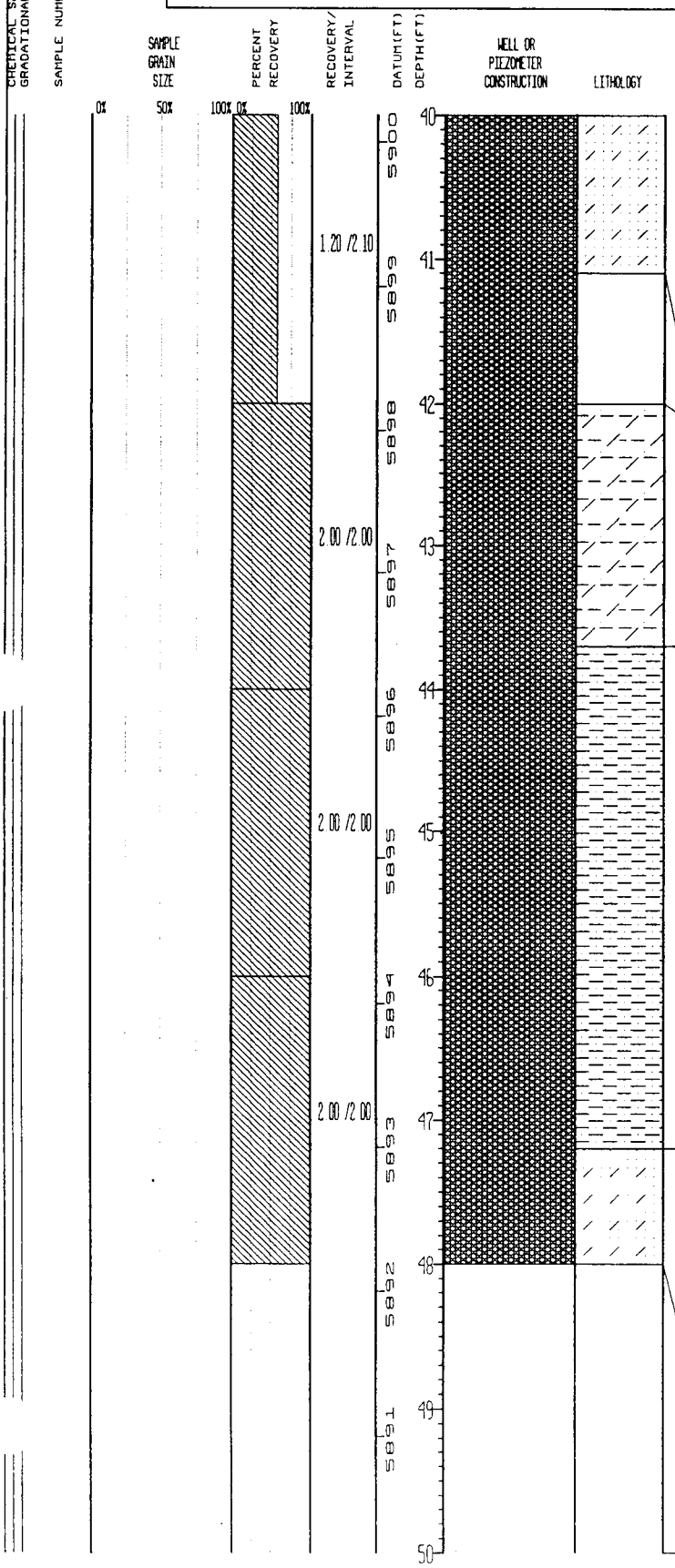
REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 22.0 FT. - 18.9 FT. BACKFILL MATERIAL: BENTONITE 48.0 FT. - 37.1 FT.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
SC	Clayey Sand with some gravel - dark yellowish brown(10YR4/2) medium- to fine-grained sand, fine-grained gravel, well graded, sub-angular to sub-rounded sand, sub-rounded gravel, high plasticity, dominant lithology sand quartz with trace K-spar, mica and dark minerals, trace rock fragments, gravel primarily quartzite and granite, trace iron staining on grains, no apparent bedding, moist. 11% gravel, 59% sand, 3% silt, 27% clay.
GW	Sandy Gravel - dark yellowish brown (10YR4/2) to dark yellowish green (10GY4/4), gravel maximum size 1 1/2" diameter, average 1/2" diameter, coarse- to fine-grained sand, well graded, low plasticity, gravel primarily quartzite and granite, dominant lithology sand quartz with some rock fragments of quartzite and granite, trace coal, mica, limonite and K-spar, iron staining on grains, coal with limonite staining around it, green staining on core at 31.1-31.3', no apparent bedding, moist. 63% gravel, 36% sand, 1% silt.
	No recovery for this interval.
GP	Gravel - brownish gray (5YR4/2), maximum gravel size 2 1/2" diameter, average 3/4" diameter, coarse- to medium-grained sand, poorly graded, angular, low plasticity, gravel primarily quartzite, sand quartz with trace K-spar and mica, no apparent bedding, moist. 95% gravel, 5% sand
	No recovery for this interval.
GW	Sandy Gravel with sand clay - moderate yellowish brown (10YR4/2), maximum gravel size 1 1/2" diameter, average 1/4" diameter, coarse- to fine-grained sand, sub-angular, well graded, low plasticity, gravel primarily quartzite with some granite, dominant lithology sand quartz with some K-spar, mica and trace dark minerals and rock fragments, trace iron staining on grains, dry. 60% gravel, 30% sand, 10% clay.
	VOA sample obtained from this interval. Top of bedrock at 34.9 ft.
SILTY CLAYSTONE	Silty Claystone with some sand - light olive gray (5Y5/2), as described below.
	No recovery for this interval.
SILTY CLAYSTONE	Silty Claystone with some sand - light olive gray (5Y5/2), very fine-grained sand, well sorted, sub-rounded, approximately 10% porosity, argillaceous cement, slightly friable, dominant lithology sand quartz, with trace dark minerals and iron staining on grains, trace carbonaceous material, no apparent bedding, trace interbedded sandstone, trace healed vertical fractures with limonite and purple mineral at 38.0', moist, weathered, increase in competency at 37.1-38.5'. 6% sand, 28% silt, 66% clay.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 48.0	GROUND ELEVATION (FT):	5940.19	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	750152.86	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	05391
EAST:	2088297.63	LOCATOR NUMBER: I15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/24/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 22.0 FT. - 18.9 FT. BACKFILL MATERIAL: BENTONITE 48.0 FT. - 37.1 FT.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
SILTY SANDSTONE	Silty Sandstone - pale olive (10Y6/2), fine- to very fine-grained sand, well sorted, angular to sub-angular, 20% porosity, argillaceous cement, highly friable, dominant lithology sand clear quartz, with trace rose quartz and dark mineral (coal?), trace iron staining on grains, trace carbonaceous material, trace limonite staining throughout interval, trace vertical fractures with limonite staining, no apparent bedding, decrease in competency at 39.6-42.0', wet, weathered. 67% sand, 26% silt, 7% clay.
	No recovery for this interval.
SILTY CLAYSTONE	Silty Claystone with some sand - medium light gray (N6) to light olive gray (5Y5/2), very fine-grained sand, well sorted, 15% porosity, argillaceous cement, slightly friable, dominant lithology sand quartz, some carbonaceous material up to 1" long, trace horizontal bedding, trace healed vertical fracture with limonite, saturated, weathered. 17% sand, 21% silt, 62% clay.
SANDY CLAYSTONE	Sandy Claystone with some silt - light olive gray (5Y5/2), very fine-grained sand, well sorted, sub-angular, 15% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz trace dark minerals, trace iron staining on grains, trace carbonaceous material, trace laminated bedding in sandstone lense at 46.2', interbedded sandstone lense throughout interval, trace vertical fracture with limonite, wet, weathered. 19% sand, 15% silt, 66% clay.
SILTY SANDSTONE	Silty Sandstone with some clay - moderate olive brown (5Y4/4), very fine-grained sand, well sorted, sub-angular to sub-rounded, 20% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with trace dark minerals, trace iron staining on grains, trace carbonaceous material, no apparent bedding, trace clay clast, no fracturing, wet, weathered. 57% sand, 26% silt, 17% clay.
	Total depth at 48.0 ft.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 37.0	GROUND ELEVATION (FT):	5947.61	PROJECT NUMBER:	OU2RI
NORTH:	750053.14	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST:	2087620.69	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED	10/04/91

LOG OF BORING NUMBER: 05691

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 23.0 FT. - 20.0 FT. BACKFILL MATERIAL: BENTONITE 42.6 FT. - 37.1 FT. CUTTING SAMPLES OBTAINED IN 16 OZ. JARS EVERY TWO FEET WITH THE EXCEPTION OF 24.7-28.4 AND 34.8-37.0, OFFSET TO 11391

CHEMICAL SAMPL / GRADATIONAL S	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
				0.00 /0.90	5947	0				Top soil, start of boring at 0.90 ft
				0.00 /1.10	5946	1			GW	Organic Sandy Gravel with some clay - grayish black (N2), maximum gravel size 2", average size 1" diameter, coarse- to fine-grained sand, well graded, low plasticity, sub-angular sand, sub-rounded gravel, gravel primarily quartzite and granite, abundant caliche coating, dominant lithology sand quartz with some rock fragments and trace mica and dark minerals, abundant caliche throughout interval, no apparent bedding, moist, abundant root present. 58% gravel, 27% sand, 5% silt, 10% clay.
				0.00 /2.00	5945	2			GW	Clayey Sandy Gravel - pale brown (5YR5/2), maximum size gravel 1/2" diameter, average size 1/4" diameter, coarse- to fine-grained sand, well graded, sub-rounded gravel, sub-angular sand, low to medium plasticity, gravel primarily quartzite with caliche coating, dominant lithology sand quartz, with some rock fragments and trace mica, abundant caliche throughout interval, some iron staining on grains and throughout interval, no apparent bedding, moist, some roots present. 71% gravel, 21% sand, 8% clay.
				0.00 /2.00	5943	3			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), maximum size gravel 1 1/2" diameter, average size 1/2", coarse- to fine-grained sand, well graded, sub-rounded gravel, sub-angular to sub-rounded sand, low plasticity, gravel primarily quartzite and granite, dominant lithology sand quartz with some iron staining on grains, iron staining throughout interval, some caliche throughout interval, no apparent bedding, moist, increase in sand at 10.0-12.0', no caliche at 18.0-20.0'. 67% gravel, 26% sand, 2% silt, 5% clay.
				0.00 /2.00	5941	5				
				0.00 /2.00	5940	7				
				0.00 /4.00	5938	9				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 37.0	GROUND ELEVATION (FT):	5947.61	PROJECT NUMBER:	OU2RI
NORTH: 750053.14	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST: 2087620.69	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/04/91

LOG OF BORING NUMBER: 05691

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 23.0 FT. - 20.0 FT. BACKFILL MATERIAL: BENTONITE 42.6 FT. - 37.1 FT. CUTTING SAMPLES OBTAINED IN 16 OZ. JARS EVERY TWO FEET WITH THE EXCEPTION OF 24.7-28.4 AND 34.8-37.0, OFFSET TO 11391.

DEPTH	CHEMICAL SAMPL / GRADATIONAL S	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					0.00 /4.00		10				
						5937					
							11				
						5936					
							12				
						5935					
					0.00 /2.00		13				
						5934					
							14				
						5933					
					0.00 /2.00		15				
						5932					
							16				
						5931					
					0.00 /2.00		17				
						5930					
							18				
						5929					
					0.00 /2.00		19				
						5928					
							20				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 37.0	GROUND ELEVATION (FT):	5947.61	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	750053.14	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	05691
EAST:	2087620.69	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/04/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 23.0 FT - 20.0 FT. BACKFILL MATERIAL: BENTONITE 42.6 FT. - 37.1 FT. CUTTING SAMPLES OBTAINED IN 16 OZ. JARS EVERY TWO FEET WITH THE EXCEPTION OF 24.7-28.4 AND 34.8-37.0, OFFSET TO 11391

CHEMICAL SAMPL / GRADATIONAL SI	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
				0.00 /2.00	5927	20–21			SC	Clayey Sand - moderate brown (5YR4/4), medium- to fine-grained sand, average size gravel 1/4" diameter, poorly graded, sub-angular to sub-rounded sand, sub-angular gravel, medium plasticity, dominant lithology sand quartz with some granite rock fragments, trace mica, K-spar, and dark minerals, gravel granite, some iron staining on grains, some iron staining throughout interval, trace carbonaceous material, no apparent bedding, moist, clay like appearance. 5% gravel, 62% sand, 2% silt
				0.00 /2.00	5926	21–22				
				0.00 /2.00	5925	22–23				
				0.00 /0.70	5924	23–24				
				2.00 /2.20	5923	24–25				No recovery for this interval
					5922	25–26			SC	Clayey Sand - moderate brown (5YR4/4), as described above, increase in sand grain size to coarse
					5921	26–27	10/07/91		GW	Sandy Gravel - moderate brown (5YR4/4), maximum size gravel 2 1/2" diameter, average size 1", coarse- to fine-grained sand, well graded, sub-angular gravel, sub-angular to sub-rounded sand, low plasticity, gravel primarily quartzite and granite with some limonite and carbonaceous material, dominant lithology sand quartz with some quartzite and granite rock fragments with trace mica, K-spar and dark minerals, some iron staining on grains and throughout interval, no apparent bedding, saturated 59% gravel, 33% sand, 2% silt, 6% clay
				1.50 /1.50	5920	27–28	11/01/91			VOA sample obtained from this interval
	BH00091WC02				5919	28–29			GP	Gravel with some sand - moderate brown (5YR4/4), maximum size gravel 3/4" diameter, average 1/4" diameter, coarse- to fine-grained sand, poorly graded, angular to sub-angular, low plasticity, gravel primarily quartzite with some granite, dominant lithology sand quartz, no apparent bedding, saturated 85% gravel, 12% sand, 3% clay
				0.00 /1.60	5918	29–30			SC	Gravelly Sand with some clay - moderate brown (5YR3/4), coarse- to fine-grained sand, maximum gravel size 1/2" diameter, average 1/4" diameter, well graded, sub-angular to sub-rounded sand, sub-rounded gravel, medium plasticity, dominant lithology

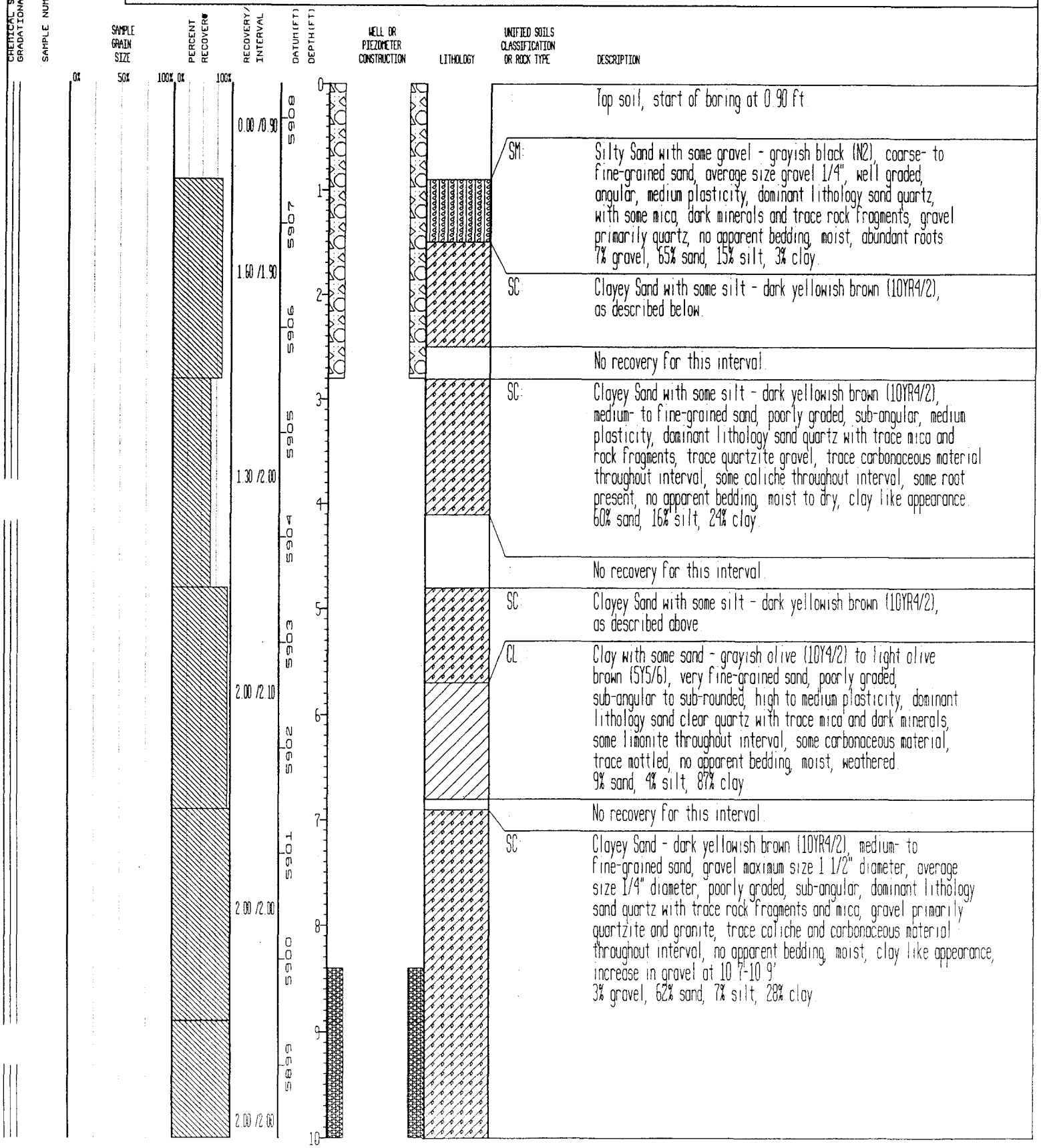
STATE PLANE COORDINATE		TOTAL DEPTH (FT): 37.0	GROUND ELEVATION (FT):	5947.61	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER
NORTH:	750053.14	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	05691
EAST:	2087620.69	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/04/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 23.0 FT. - 20.0 FT. BACKFILL MATERIAL: BENTONITE 42.6 FT. - 37.1 FT. CUTTING SAMPLES OBTAINED IN 16 OZ. JARS EVERY TWO FEET WITH THE EXCEPTION OF 24.7-28.4 AND 34.8-37.0, OFFSET TO 11391.

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%	0.00 /2.00	5917	30				sand quartz with some granite and quartzite rock fragments, trace mica and dark minerals, trace iron staining on grains, gravels primarily quartzite and granite, no apparent bedding, saturated to moist. 22% gravel, 61% sand, 5% silt, 12% clay.
					5916	31				
				0.00 /2.80	5915	32			SC	Clayey Sand - moderate greenish yellow (10Y7/4), maximum size gravel 1/4", coarse- to fine-grained sand, well graded, sub-angular, high plasticity, dominant lithology sand quartz with some dark minerals and trace K-spar, gravel primarily quartzite and granite, no apparent bedding, saturated, increase in sand at 34.8-35.2' 2% gravel, 69% sand, 1% silt, 28% clay Top of bedrock at 35.2 ft.
					5914	33				
					5913	34				
				2.20 /2.20	5912	35			SANDY CLAYSTONE	Sandy Claystone - pale olive (10Y6/2), very fine-grained sand, well sorted, sub-angular, approximately 15% porosity, argillaceous cement, slightly friable, dominant lithology sand quartz with trace mica and dark minerals, trace horizontal bedding at 35.5-36.0', trace carbonaceous material, interbedded sand lenses at 35.9-37.0', trace clay clasts throughout interval, fossil mold at 35.4', weathered 2% gravel, 68% sand, 3% silt, 27% clay
					5911	36				
	BH00093W012									VOA sample obtained from this interval
	BH00094W012								SANDY CLAYSTONE	Sandy Claystone - pale olive (10Y6/2), as described above
						37				VOA Duplicate sample obtained from this interval
					5910				SANDY CLAYSTONE	Sandy Claystone - pale olive (10Y6/2), as described above
										Total depth at 37.0 ft.
					5909	38				
						39				
				0.00 /5.60	5908	40				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 31.0	GROUND ELEVATION (FT):	5908.32	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH: 748496.24	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	05991
EAST: 2086338.43	LOCATOR NUMBER: 613	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/08/91	

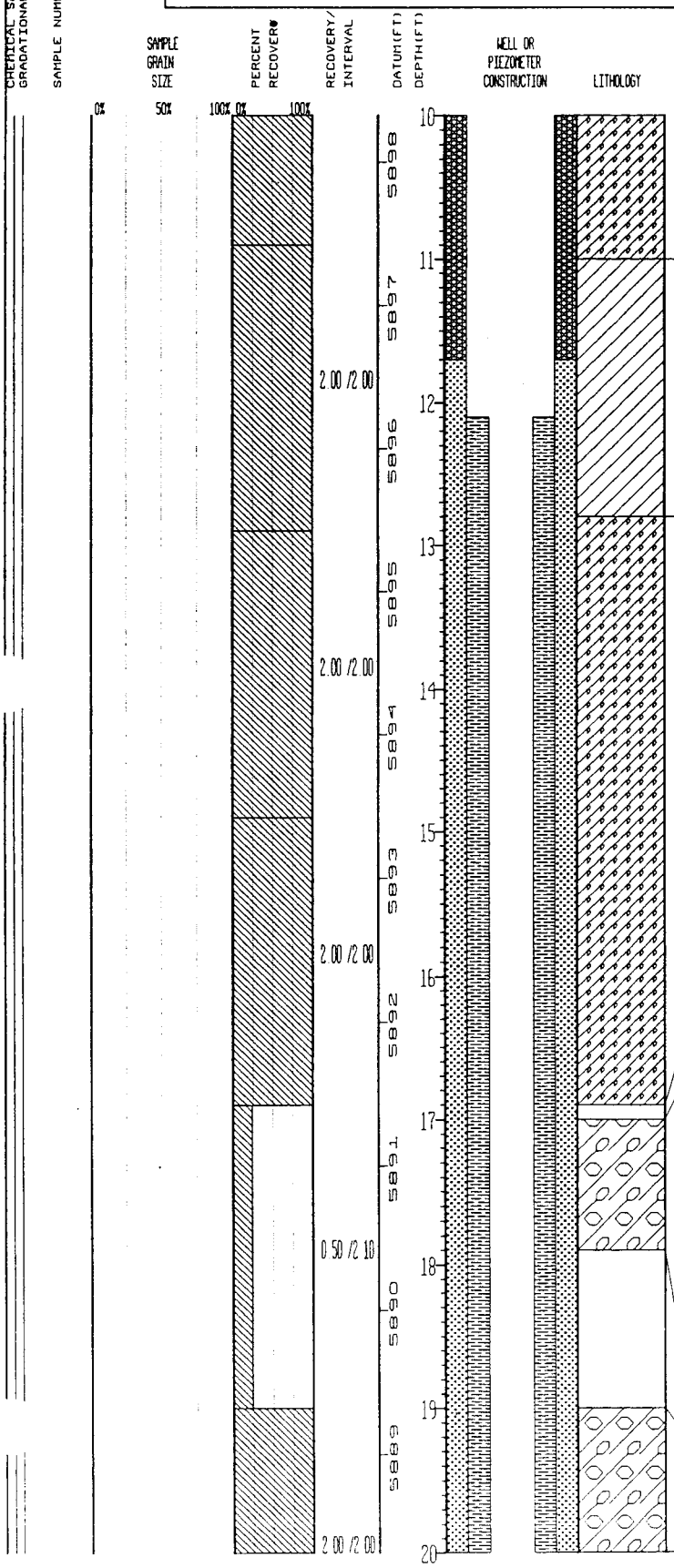
REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 11.7 FT. - 8.4 FT. BACKFILL MATERIAL: BENTONITE 31.0 FT. - 24.0 FT.



STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 31.0	GROUND ELEVATION (FT):	5908.32	PROJECT NUMBER:	OU2RI
NORTH:	748496.24	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST:	2086338.43	LOCATOR NUMBER: 613	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/08/91

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 11.7 FT. - 8.4 FT. BACKFILL MATERIAL: BENTONITE 31.0 FT. - 24.0 FT.

LOG OF BORING NUMBER: 05991



CL: Clay with some silt - light olive (10Y5/4), very fine-grained sand, poorly graded, sub-angular, medium to high plasticity, dominant lithology sand clear quartz with trace mica and dark minerals, with trace carbonaceous material throughout interval, some banded iron staining throughout interval, trace horizontal bedding at 11.8-12.1', moist, grayish black (N2) color at 12.5-12.8', weathered, appears to be a bedrock slump.
8% sand, 10% silt, 82% clay

SC: Clayey Sand with some gravel - light brown (5YR6/4) to dusky yellow (5Y6/4), coarse- to fine-grained sand, poorly graded, sub-angular, low plasticity, dominant lithology sand quartz with some dark minerals and mica, trace rock fragments, gravel primarily quartzite with trace ironstone at 16.4', abundant caliche throughout interval, trace carbonaceous material, no apparent bedding, moist
5% gravel, 66% sand, 2% silt, 27% clay

No recovery for this interval.

GC: Clayey Gravel with some sand - dusky yellow (5Y6/4), maximum size gravel 2 1/2" diameter, average size 1" diameter, coarse- to fine-grained sand, gravel sub-rounded, sand sub-angular to sub-round, well graded, low to medium plasticity, gravel primarily quartzite and granite, dominant lithology sand quartz with some mica and dark minerals, abundant caliche throughout interval, abundant caliche coating on gravels, trace iron staining on grains and throughout interval, no apparent bedding, moist
55% gravel, 14% sand, 3% silt, 28% clay

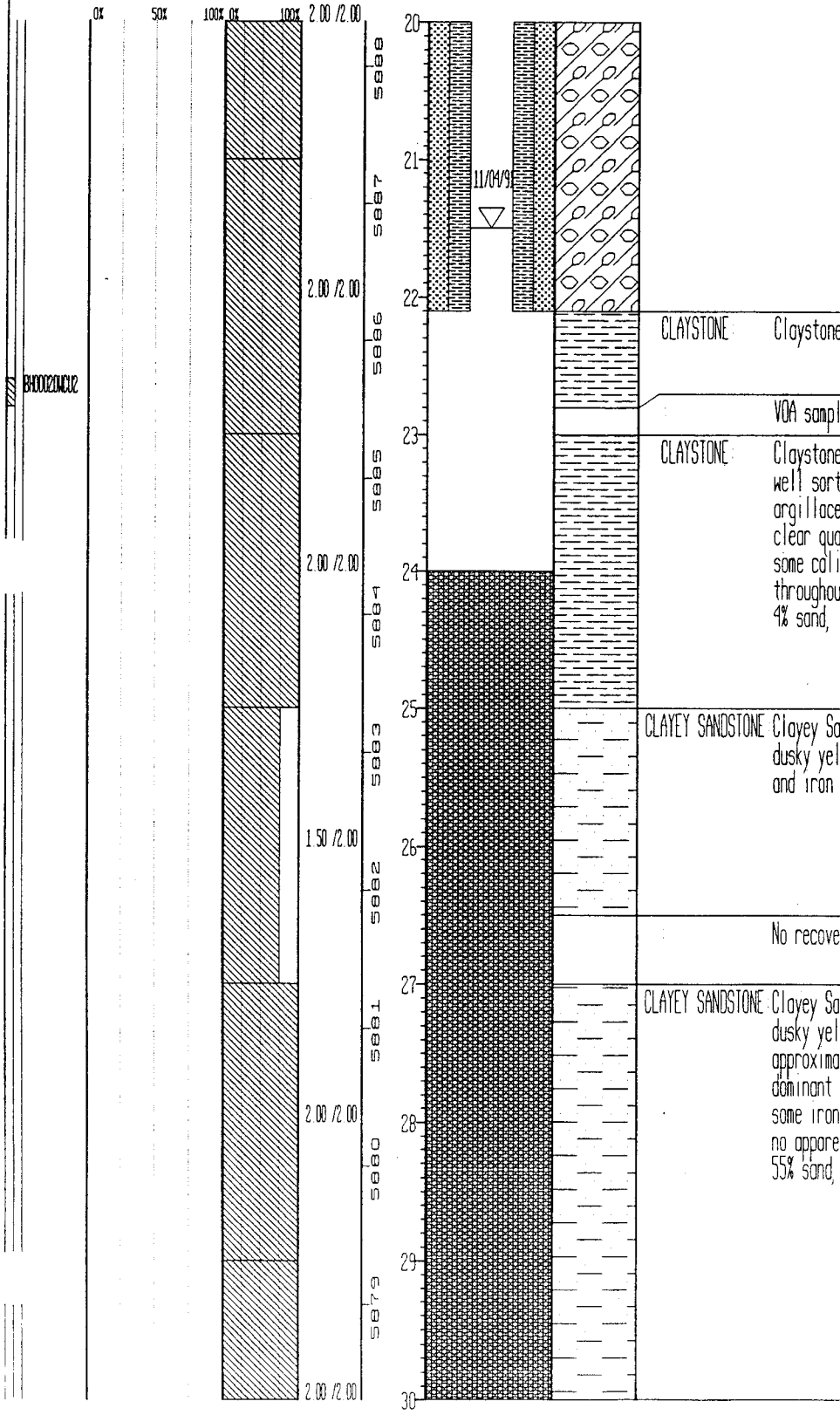
No recovery for this interval.

GC: Clayey Gravel with some sand - dusky yellow (5Y6/4), as described above
Top of bedrock at 22.1 ft

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 31.0	GROUND ELEVATION (FT):	5908.32	PROJECT NUMBER:	OU2RI
NORTH: 748496.24	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST: 2086338.43	LOCATOR NUMBER: 613	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/08/91

LOG OF BORING NUMBER: 05991

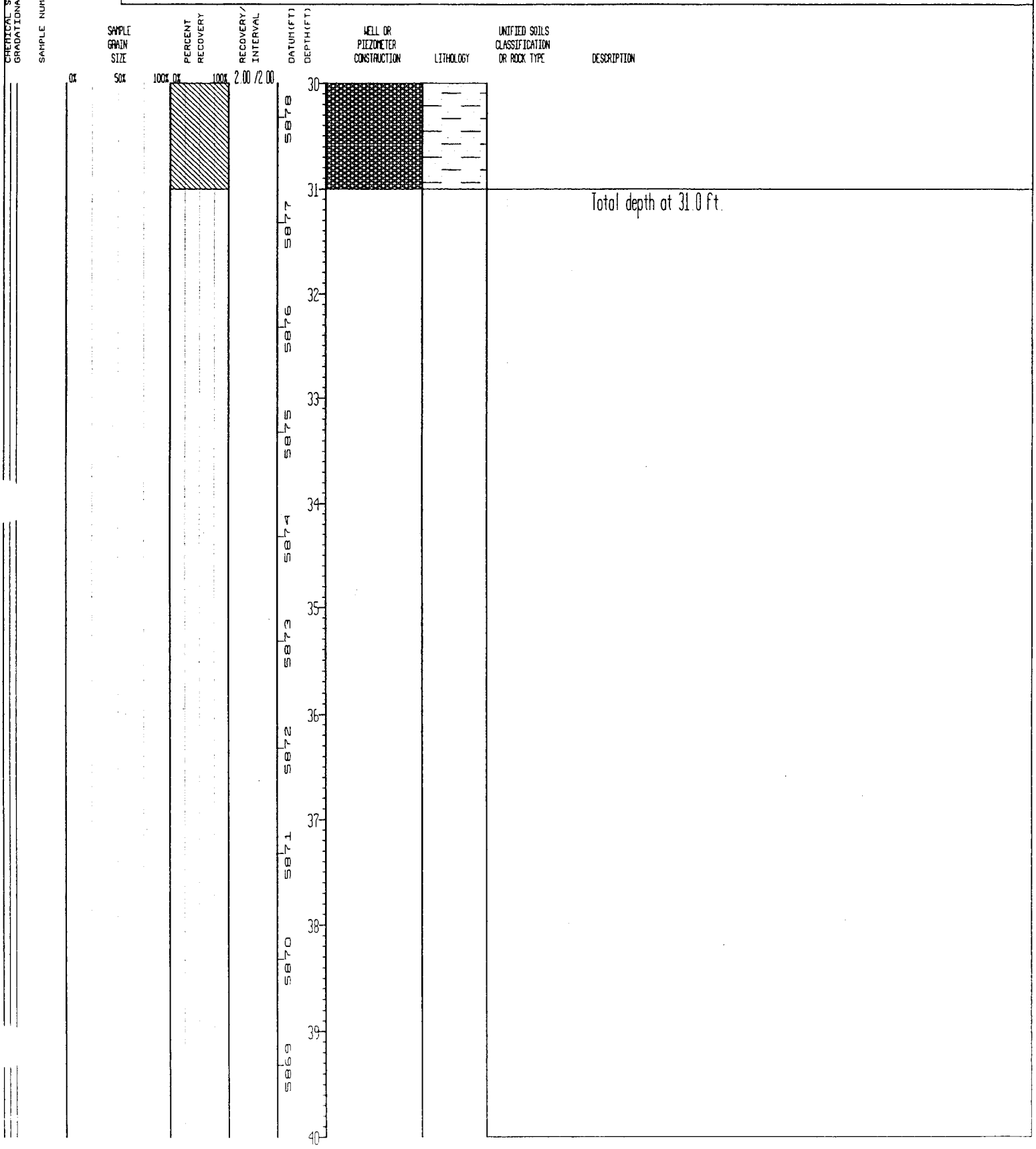
REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 11.7 FT. - 8.4 FT. BACKFILL MATERIAL: BENTONITE 31.0 FT. - 24.0 FT.



CLAYSTONE:	Claystone - light olive (10Y5/4), as described below.
	VOA sample obtained from this interval.
CLAYSTONE:	Claystone - light olive (10Y5/4), very fine-grained sand, well sorted, sub-angular, approximately 5% porosity, argillaceous cement, non-friable, dominant lithology sand clear quartz with trace dark minerals, no apparent bedding, some caliche clasts throughout interval, trace iron staining throughout interval, moist, unweathered. 4% sand, 5% silt, 91% clay.
CLAYEY SANDSTONE	Clayey Sandstone/Sandy Claystone with some silt, interbedded - dusky yellow (5Y6/4), as described below, abundant weathering and iron staining at 25.0-29.0'.
	No recovery for this interval.
CLAYEY SANDSTONE	Clayey Sandstone/Sandy Claystone with some silt, interbedded - dusky yellow (5Y6/4), very fine-grained sand, sub-angular, approximately 15% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with trace dark minerals, some iron staining on grains, some horizontal bedding at 29.4-29.9', no apparent fractures, moist, unweathered. 55% sand, 11% silt, 34% clay.

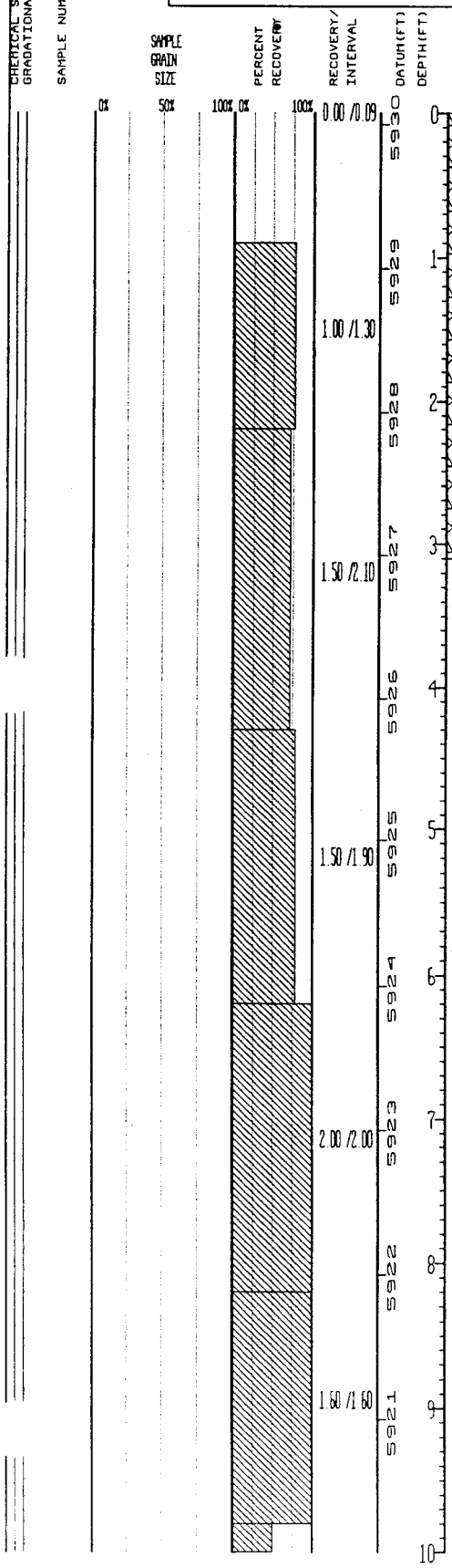
STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 31.0	GROUND ELEVATION (FT):	5908.32	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	748496.24	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	05991
EAST:	2086338.43	LOCATOR NUMBER: 613	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/08/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 11.7 FT. - 8.4 FT. BACKFILL MATERIAL: BENTONITE 31.0 FT. - 24.0 FT.



STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 44.5	GROUND ELEVATION (FT):	5930.08	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH: 750405.07	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	06091
EAST: 2088962.91	LOCATOR NUMBER: I15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/16/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 25.3 FT. - 22.3 FT. BACKFILL MATERIAL: GROUT 45.7 FT. - 40.7 FT.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	Top soil, start of boring at 0.90 ft.
GW	Sandy Gravel - light olive gray (5Y5/2), 2 1/2"-1/4" gravel, some coarse- to fine-grained sand, well graded, sub-rounded to sub-angular gravel, sub-rounded sand, trace carbonaceous material, abundant plant roots, dry, boulders dark gray (N3), some caliche. 60% gravel, 30% sand, 10% fines
	No recovery for this interval.
GW	Sandy Gravel - pale yellowish green (10YR6/2), gravel from 2 1/2"-1/4", well graded, sub-rounded, low plasticity, composed of gray quartz gravel dark gray (N3), sub-rounded, with sand quartz, milky and clear, sub-rounded to sub-angular, rusty iron stain on sandy section, no apparent bedding, no moisture in gravel, some caliche, white soft as inclusions and in thin lenses at 14.0' cobble of 1" diameter. 57% gravel, 42% sand, 1% fines
	No recovery for this interval.
GW	Sandy Gravel - pale yellowish green (10YR6/2), as described above.
	No recovery for this interval.
GW	Sandy Gravel - pale yellowish green (10YR6/2), as described above.

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 44.5	GROUND ELEVATION (FT):	5930.08	PROJECT NUMBER:	OU2RI
NORTH: 750405.07	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST: 2088962.91	LOCATOR NUMBER: I15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/16/91

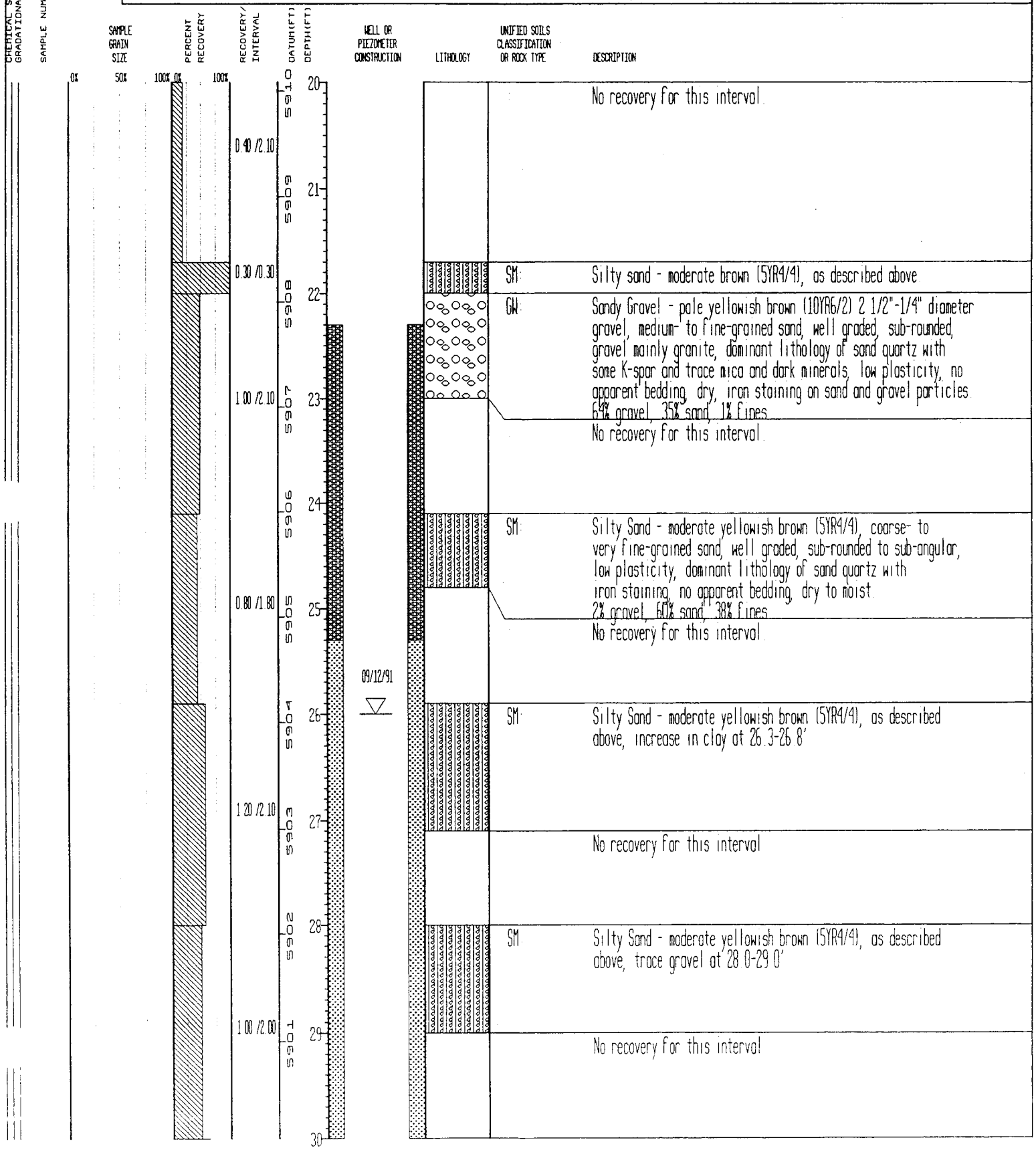
REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 25.3 FT. - 22.3 FT. BACKFILL MATERIAL: GROUT 45.7 FT. - 40.7 FT.

LOG OF BORING NUMBER: 06091

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%	1.00 /2.00	5920	10				
					5919	11				No recovery for this interval.
				1.70 /2.20	5918	12			GW	Sandy Gravel - pale yellowish green (10YR6/2), as described above.
					5917	13				
				0.00 /2.10	5916	14				No recovery for this interval. 1" diameter cobble.
					5915	15				
					5914	16			GW	Sandy Gravel - pale yellowish green (10YR6/2), as described above.
				0.30 /2.00	5913	17				No recovery for this interval.
					5912	18			SM	Silty sand - moderate brown (5YR4/4), coarse- to medium-grained sand, moderate to well graded, sub-rounded to rounded, low plasticity, dominant lithology sand quartz, trace dark minerals, with abundant iron staining and caliche, no apparent bedding, dry, sand has clay cement giving it a clay like appearance 79% sand, 19% silt, 2% clay
				1.50 /1.50	5911	19				
						20				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 44.5	GROUND ELEVATION (FT):	5930.08	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	750405.07	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	06091
EAST:	2088962.91	LOCATOR NUMBER: I15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/16/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 25.3 FT. - 22.3 FT. BACKFILL MATERIAL: GROUT 45.7 FT. - 40.7 FT.

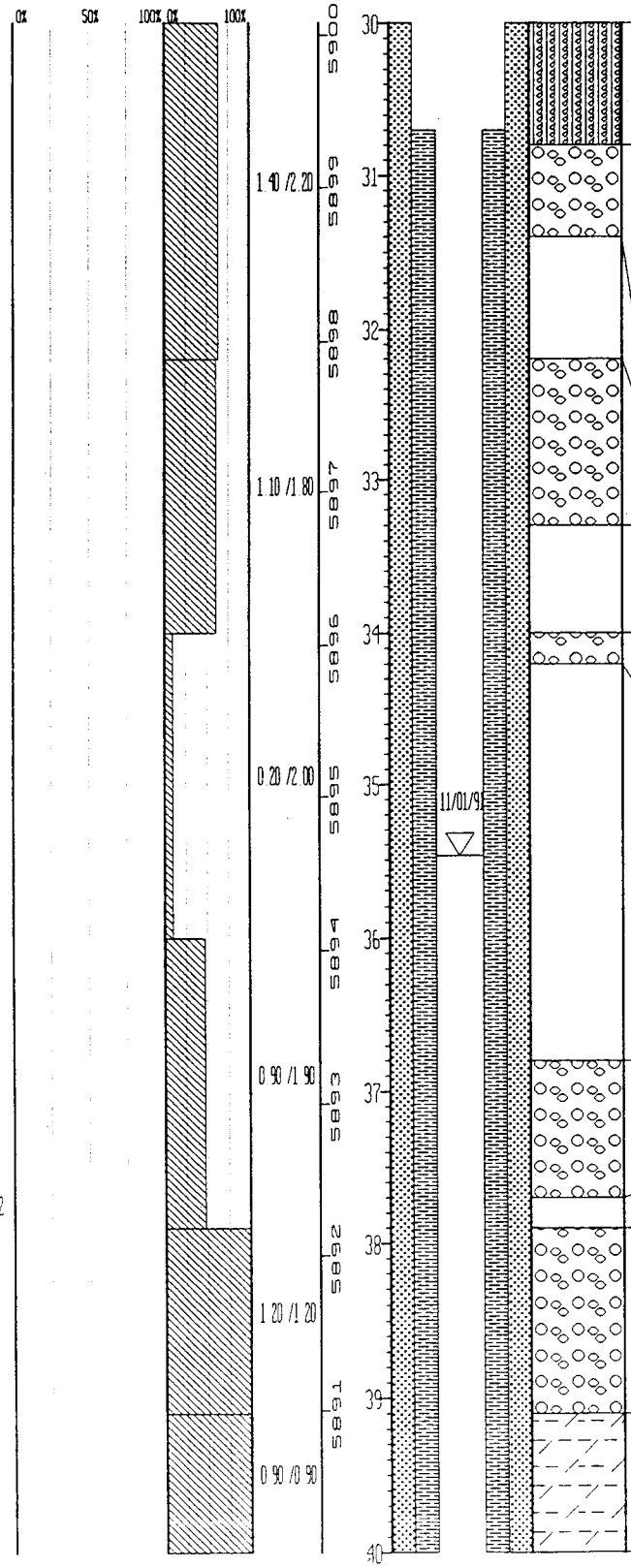


STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 44.5	GROUND ELEVATION (FT):	5930.08	PROJECT NUMBER:	OU2RI
NORTH:	750405.07	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST:	2088962.91	LOCATOR NUMBER: I15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/16/91

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 25.3 FT. - 22.3 FT. BACKFILL MATERIAL: GROUT 45.7 FT. - 40.7 FT.

LOG OF BORING NUMBER: 06091

CHEMICAL SAMPLE DEPTH
GRADATIONAL SAMPLE DEPTH
SAMPLE NUMBER



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
SM	Silty Sand - moderate yellowish brown (5YR4/4), as described above.
GW	Sandy Gravel - moderate brown (5YR4/4) to dark yellowish brown (10YR4/2), gravel from 2 1/2" to 1/4" diameter, coarse- to fine-grained sand, well graded, sub-rounded, low plasticity, gravel primarily granite, dominant lithology of sand quartz with some mica, trace K-spar and dark minerals, no apparent bedding, uneven break, wet with a weathered appearance, iron staining throughout interval saturated 56% gravel, 40% sand, 4% fines
	No recovery for this interval.
GW	Sandy Gravel - moderate brown (5YR4/4) to dark yellowish brown (10YR4/2), as described above.
	No recovery for this interval.
GW	Sandy Gravel - moderate brown (5YR4/4) to dark yellowish brown (10YR4/2), as described above.
	No recovery for this interval
GW	Sandy Gravel - moderate brown (5YR4/4) to dark yellowish brown (10YR4/2), as described above
	VOA sample obtained from this interval
GW	Sandy Gravel - moderate brown (5YR4/4) to dark yellowish brown (10YR4/2), as described above, increase in pea-size gravel at 38.0-39.0' Top of bedrock at 39.1 ft
SILTY CLAYSTONE	Silty Claystone with some sand - medium gray (N5), fine- to very fine-grained sand, moderately sorted, sub-rounded, approximately 15% porosity, argillaceous cement, moderately friable, dominant lithology of sand quartz, with trace mica

STATE PLANE COORDINATE		TOTAL DEPTH (FT) 44.5	GROUND ELEVATION (FT) 5930 08	PROJECT NUMBER OU2RI	LOG OF BORING NUMBER
NORTH	750405 07	AREA NE TRENCHES	CASING DIAMETER (IN) 2 0	GEOLOGIST L A. GUST	06091
EAST	2088962 91	LOCATOR NUMBER I15	BOREHOLE DIAMETER (IN) 10 0	DATE DRILLED 09/16/91	

REMARKS HOLLOW STEM AUGER BENTONITE SEAL 25 3 FT - 22 3 FT BACKFILL MATERIAL GROUT 45 7 FT - 40 7 FT

CHEMICAL SAMPLE / GRADATIONAL SAMPLE DEPTH	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					5890	40				and dark minerals, massive, no apparent bedding or fracturing, wet, iron staining at 39 1-40 0', weathered. 16% sand, 17% silt, 67% clay
				1 30 /1 60	5889	41			SANDY CLAYSTONE	Sandy Claystone with some silt - medium gray (N5), very fine-grained sand, well sorted, sub-rounded, approximately 10% porosity, argillaceous cement, slightly friable, dominant lithology sand quartz, trace mica and dark minerals, trace iron staining throughout interval, no apparent bedding or fracturing, wet, slightly weathered. 12% sand, 9% silt, 79% clay
										No recovery for this interval.
				0 50 /0 70	5888	42			SANDY CLAYSTONE	Sandy Claystone with some silt - medium gray (N5), as described above
	BH00078WC02									VOA sample obtained from this interval.
				0 10 /0 60					SANDY CLAYSTONE	Sandy Claystone with some silt - medium gray (N5), as described above
										No recovery for this interval.
					5887	43			SANDY CLAYSTONE	Sandy Claystone with some silt - medium gray (N5), as described above
										No recovery for this interval
				0 10 /2 60	5886	44				
					5885	45				Total depth at 44 5 ft
					5884	46				
					5883	47				
					5882	48				
					5881	49				
						50				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 38.0	GROUND ELEVATION (FT):	5919.21	PROJECT NUMBER:	OU2RI
NORTH:	750864.99	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST:	2089984.78	LOCATOR NUMBER: I16	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	01/03/92
REMARKS: HOLLOW STEM AUGER			BACKFILL MATERIAL: BENTONITE 38.2 FT. - 34.1 FT.			

LOG OF BORING NUMBER: 06191

CHEMICAL SAMPL
GRADATIONAL SA
DEPTH
SAMPLE NUMBER

SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
0% 50%	100% 0%	100%	5919	0				Top soil, start of boring at 0.90 ft.
		1.00 /2.00	5918	1			GW	Sandy Gravel - dark yellowish brown (10YR4/2) maximum gravel diameter .09', average .07', coarse- to fine- grained sand, well graded, sub-rounded to angular, low plasticity, gravel primarily calcite cemented heterolithologic clasts and quartzite, sand contains abundant quartz (clear and frosted), some rock fragments, trace organic material, no apparent bedding, moist, some plant (root) material. 68% gravel, 28% sand, 3.6% silt, 0.4% clay.
			5917	2			GW	Sandy Gravel - moderate orange pink (5YR/8/4), maximum gravel diameter >.25', average .08', fine- to coarse-grained sand, well graded, sub-rounded to angular, low plasticity, gravel primarily calcite coated quartzite sand contains abundant quartz, some rock fragments, feldspar, and dark minerals, trace mica, iron staining, no apparent bedding, dry. 59% gravel, 37% sand, 3.2% silt, 0.8% clay.
		1.00 /2.00	5916	3				No recovery for this interval.
			5915	4				
		0.00 /2.00	5914	5				
			5913	6			GW	Sandy Gravel - moderate orange pink (5YR8/4), as described above.
		0.30 /2.00	5912	7				No recovery for this interval
			5911	8			GW	Sandy Gravel - moderate brown (5YR4/4), maximum gravel diameter > .25', average .08', fine- to coarse-grained sand, well graded, sub-rounded to angular, low plasticity, gravel primarily gray quartzite with some silty arkosic arenite, sand contains abundant quartz, some iron staining, feldspar, trace dark minerals, mica and calcite, no apparent bedding, dry, weathered silty arkosic arenite 8.5-9.0'. 49% gravel, 48% sand, 2% silt, 1% clay.
		1.00 /2.00	5910	9				No recovery for this interval
				10				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 38.0	GROUND ELEVATION (FT):	5919.21	PROJECT NUMBER:	OU2RI
NORTH:	750864.99	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST:	2089984.78	LOCATOR NUMBER: I16	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	01/03/92
REMARKS:	HOLLOW STEM AUGER.		BACKFILL MATERIAL:	BENTONITE 38.2 FT. - 34.1 FT.		

LOG OF BORING NUMBER: 06191

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%		5909	10			GW	Sandy Gravel - moderate brown (5YR4/4) as described above, increased sand content 10.0-10.7'
				1.10 /2.00	5908	11				No recovery for this interval
					5907	12			GW	Sandy Gravel - moderate brown (5YR4/4), as described above, weathered arkosic arenite clast at 12.5'
				0.80 /2.00	5906	13				No recovery for this interval
					5905	14			SW	Sandy Gravel - color change to yellowish gray (5Y7/2), as described above
				0.90 /2.00	5904	15				No recovery for this interval
					5903	16			SW	Sandy Gravel - yellowish gray (5Y7/2), as described above, increased feldspathic sand content at 16.5' and 17.0-17.2' (weathered arkosic arenite)
				1.40 /2.00	5902	17				No recovery for this interval
					5901	18			SW	Sandy Gravel - yellowish gray (5Y7/2), as described above, weathered arkosic arenite clast at 18.5'
				1.30 /2.00	5900	19				No recovery for this interval
						20				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 38.0	GROUND ELEVATION (FT):	5919.21	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	750864.99	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	06191
EAST:	2089984.78	LOCATOR NUMBER: I16	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	01/03/92	
REMARKS:	HOLLOW STEM AUGER.		BACKFILL MATERIAL:	BENTONITE 38.2 FT. - 34.1 FT.			

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY / INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%			20			GW	Sandy Gravel - yellowish gray (5Y7/2), as described above, fragmented weathered arkosic arenite at 20.3-20.4'
									GW/SW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described below.
				1.20 /2.00	5898	21				No recovery for this interval.
						22			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), maximum gravel diameter 2', average 1', sand fine- to coarse-grained, well graded, angular to sub-rounded, low plasticity, gravel primarily gray quartzite, some translucent quartzite, sand contains abundant quartz, some iron staining, carbonaceous material, rock fragments, feldspar, trace mica, dark minerals, no apparent bedding, moist, increased sand content at 22.0-23.1', increased carbonaceous material at 22.7-22.9', fractured translucent quartzite cobble at 23.0', increased carbonaceous material at 24.6', 48% gravel, 48% sand, 3% silt, 1% clay
				1.00 /1.10	5897					
				0.80 /0.90	5896	23				
					5895	24				
				1.70 /2.00	5894	25				
	BH00148WC02									VOA sample obtained from this interval.
									SW	Sandy Gravel - moderate yellowish brown (10YR5/4) as described above.
										No recovery for this interval
					5893	26			SW	Gravelly Sand - moderate yellowish brown (10YR5/4), as described below.
										VOA sample obtained from this interval
				1.40 /1.50			01/03/92		SW	Gravelly Sand - moderate yellowish brown (10YR5/4), maximum gravel diameter 1.5', average 0.9', sand very fine- to coarse-grained, well graded, angular to sub-rounded, low plasticity, gravel primarily gray quartzite, some translucent quartzite, sand contains abundant quartzite, some iron staining, rock fragments and feldspar, trace carbonaceous material, mica and dark minerals, no apparent bedding, wet, translucent quartzite clasts at 28.4' and 29.0' 36% gravel, 60% sand, 3.5% silt, 0.5% clay
	BH00150WC02				5892	27				
				0.70 /0.70	5891	28				
				1.60 /2.00	5890	29			SW	Sand with some gravel - light brown (5Y5/6), maximum gravel diameter 0.5', average 0.1', fine- to coarse-grained sand, well graded, angular to sub-rounded, low plasticity, gravel primarily quartzite, sand contains abundant quartz, some iron staining, rock fragments, feldspar, trace carbonaceous material, mica and dark minerals, crudely stratified, wet 13% gravel, 80% sand, 5% silt, 2% clay
						30				No recovery for this interval

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 38.0	GROUND ELEVATION (FT):	5919.21	PROJECT NUMBER:	OU2RI
NORTH: 750864.99	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST: 2089984.78	LOCATOR NUMBER: I16	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	01/03/92
REMARKS: HOLLOW STEM AUGER		BACKFILL MATERIAL: BENTONITE 38.2 FT. - 34.1 FT.			

LOG OF BORING NUMBER: 06191

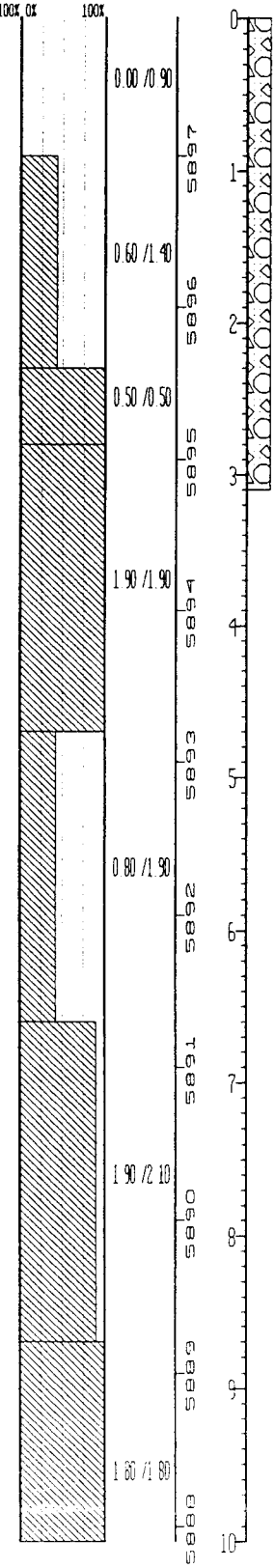
CHEMICAL SAMP/ GRADATIONAL SI	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
										No recovery for this interval
										No recovery for this interval
					5889				SW	Sand with some gravel - light brown (5Y5/6) as described above
				1.20 /1.20	5888	31			GW	Sandy Gravel - light brown (5YR6/4), maximum gravel diameter .15', average .05', very fine- to coarse-grained sand, well graded, very angular to sub-rounded, low plasticity, gravel primarily quartzite, some arkosic arenite, sand contains abundant quartz, some feldspar, rock minerals, possible some Arapahoe Fm, rip-up clasts, iron nodules at 31.8', no apparent bedding, saturated. 53% gravel, 42% sand, 4% silt, 1% clay. Top of bedrock at 32.0 ft
				0.00 /1.00	5887	32				No recovery for this interval
				0.00 /1.80	5886	33				
					5885	34			SANDY CLAYSTONE	Sandy Claystone - yellowish gray (5Y7/2), very fine- to fine-grained sand, well sorted, angular to sub-angular, approximately 7% porosity, argillaceous cement, slightly to non-friable, sand contains abundant quartz, some iron staining, feldspar, trace dark minerals, rock fragments, moderately to thickly laminated, no apparent fractures, moist. 44% sand, 9% silt, 47% clay
	BH00626WC02			1.10 /1.90	5884	35				VOA sample obtained from this interval
									SANDY CLAYSTONE	Sandy Claystone - yellowish gray (5Y7/2), as described above
										No recovery for this interval
					5883	36			SANDY CLAYSTONE	Sandy Claystone - color change to moderate yellowish brown (10YR5/4) at approximately 36.7', as described above
				0.90 /1.90	5882	37				No recovery for this interval
					5881	38				Total depth at 38.0 ft
					5880	39				
						40				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 34.9	GROUND ELEVATION (FT):	5897.90	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	751639.01	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	06291
EAST:	2091094.17	LOCATOR NUMBER: J18	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/05/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 25.9 FT. - 22.8 FT. NO BACKFILL - WELL CASING SET ON TOTAL DEPTH.

CHEMICAL SAMPL
GRADATIONAL SA
SAMPLE NUMBER
DEPTH

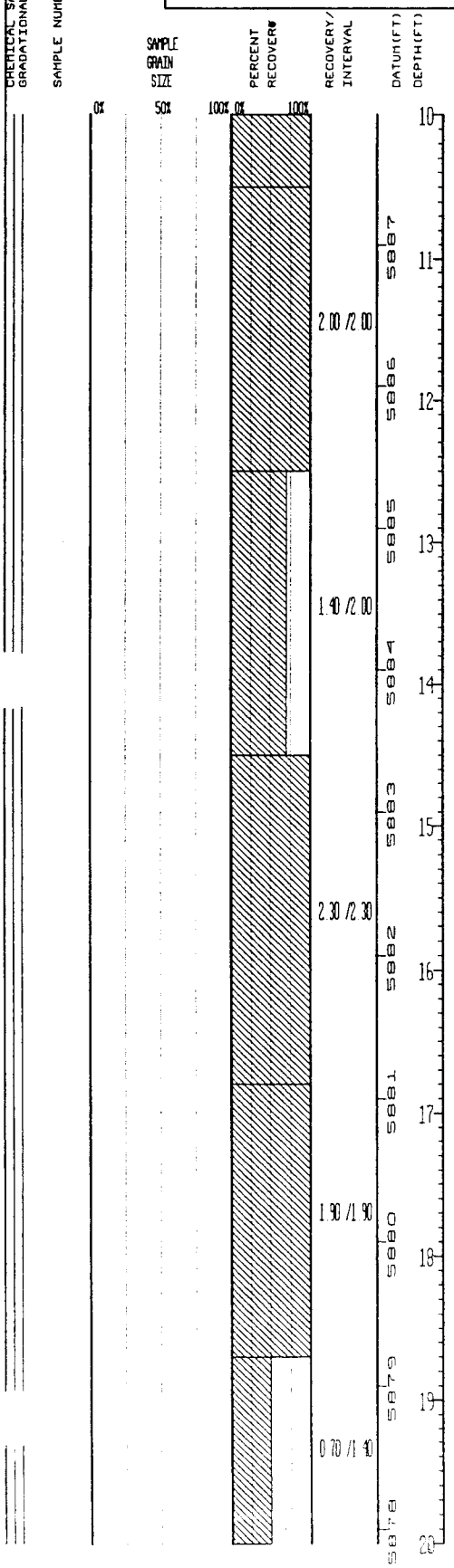
SAMPLE GRAIN SIZE (0% – 50% – 100%) | PERCENT RECOVERY (0% – 100%) | RECOVERY/INTERVAL | DATUM (FT) | DEPTH (FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	Top soil, start of boring at 0.90 ft.
SM	Silty Sand - blackish red (5R2/2) coarse- to fine-grained sand, poorly graded, sub-angular to sub-rounded, medium plasticity, dominant lithology sand quartz, no apparent bedding, dry, abundant roots. 70% sand, 25% silt, 5% clay.
	No recovery for this interval.
CL	Silty Clay with some sand - blackish red (5R2/2), coarse- to fine-grained sand, poorly graded, sub-angular, medium to high plasticity, dominant lithology sand quartz, no apparent bedding, moist, some roots present. 10% sand, 20% silt, 70% clay.
CL	Sandy Clay with some silt - moderate yellowish brown (10YR5/4), coarse- to fine-grained sand, 3/4" diameter gravel, well graded, sub-angular, medium plasticity, no apparent bedding, dry, weathered. 5% gravel, 25% sand, 15% silt, 55% clay.
GW	Sandy Gravel - light olive gray (5Y5/2) to moderate brown (5Y4/4), as described below.
	No recovery for this interval.
GW	Sandy Gravel - light olive gray (5Y5/2) to moderate brown (5Y4/4), maximum gravel size 2 1/2", average size gravel 3/4", coarse- to fine-grained sand, sub-rounded, low plasticity, gravel is primarily granite and possibly volcanic glass, sand primarily quartz with trace mica, K-spar, and dark minerals, no apparent bedding, dry to moist, caliche present throughout interval, increased caliche at 7.5-8.0', becoming more sandy and highly oxidized with some limonite staining at 8.7-9.5', highly weathered with iron staining and caliche at 10.5-11.0'. 73% gravel, 26% sand, 1% fines.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 34.9	GROUND ELEVATION (FT):	5897.90	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	751639.01	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	06291
EAST:	2091094.17	LOCATOR NUMBER: J18	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/05/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 25.9 FT. - 22.8 FT. NO BACKFILL - WELL CASING SET ON TOTAL DEPTH.

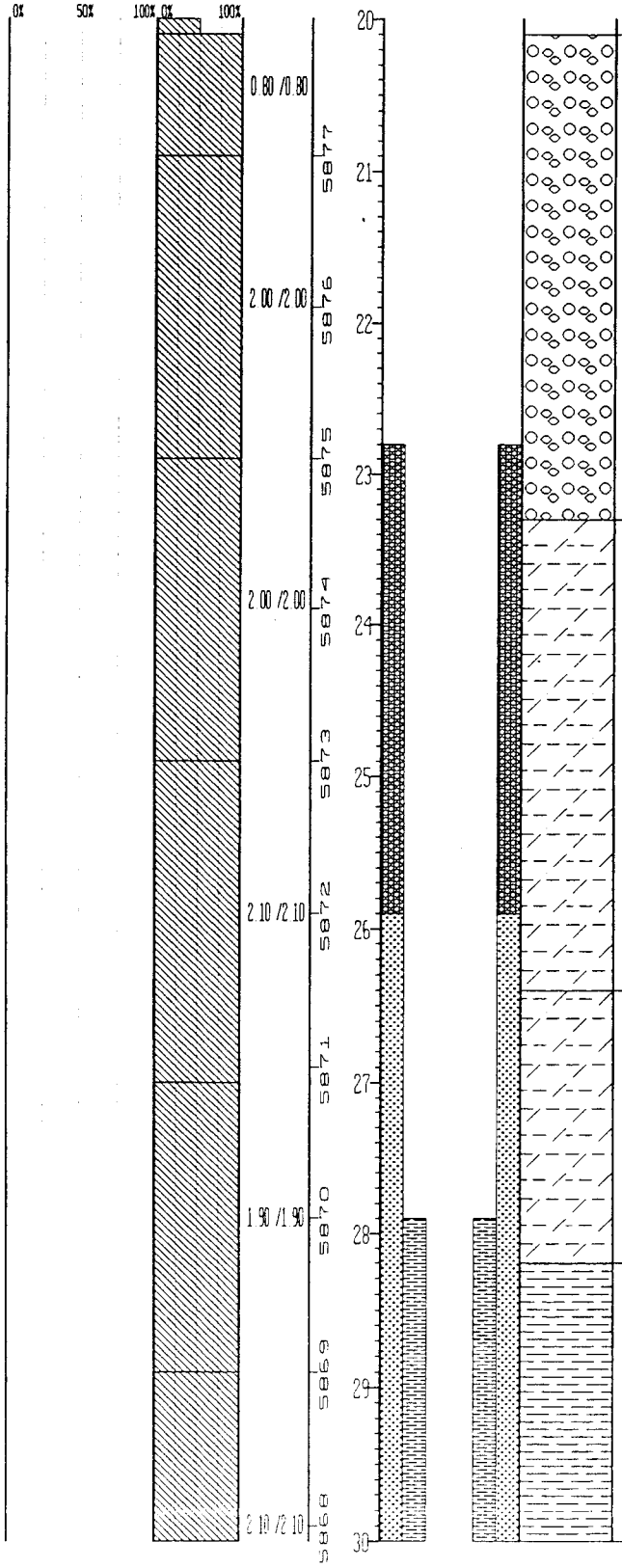


UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
SW	Gravelly Sand - moderate brown (5Y4/4), maximum gravel size 3/4" diameter, coarse- to fine-grained sand, well graded, sub-rounded, low plasticity, dominant lithology sand quartz, some limonite staining and caliche present, no apparent bedding, dry, weathered. 46% gravel, 53% sand, 1% fines.
	No recovery for this interval.
GW	Sandy Gravel - moderate brown (5Y4/4), maximum gravel size 1 1/2" diameter, average size 3/4", coarse- to fine-grained sand, sub-rounded, low plasticity, gravel primarily granite, dominant lithology sand quartz with trace mica, K-spar and dark minerals, some limonite staining and caliche present, no apparent bedding, dry, weathered. 65% gravel, 33% sand, 2% fines.
GC	Clayey Sandy Gravel with some silt - moderate brown (5Y4/4), maximum gravel size 3/4", average size 1/2", coarse- to fine-grained sand, well graded, sub-angular, low plasticity, gravel primarily granite, dominant lithology sand quartz with some K-spar and trace mica, some limonite and caliche present, no apparent bedding, dry, weathered. 50% gravel, 30% sand, 5% silt, 15% clay.
GW	Sandy Gravel - moderate brown(5Y4/4), maximum gravel size 1 1/2" diameter, average size 3/4", coarse- to fine-grained sand, well graded, sub-angular, low plasticity, gravel primarily granite, sand mainly quartz with some K-spar and mica, trace iron staining and caliche, no apparent bedding, dry. 75% gravel, 20% sand, 5% fines.
GC	Clayey Sandy Gravel - moderate brown (5Y4/4), maximum gravel size 3/4", average size 1/2", coarse- to fine-grained sand, sub-angular, well graded, low plasticity, gravel primarily granite, sand mainly quartz with trace mica and K-spar, some caliche and iron staining, highly altered clay, brick red and brown mottled with sand and clay, no apparent bedding, dry, weathered. 50% gravel, 30% sand, 20% clay.
GW	Sandy Gravel - light olive gray (5Y5/2), as described below.
	No recovery for this interval.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 34.9	GROUND ELEVATION (FT):	5897.90	PROJECT NUMBER:	OU2RI
NORTH:	751639.01	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST:	2091094.17	LOCATOR NUMBER: J18	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/05/91

LOG OF BORING NUMBER: 06291

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 25.9 FT. - 22.8 FT. NO BACKFILL - WELL CASING SET ON TOTAL DEPTH.

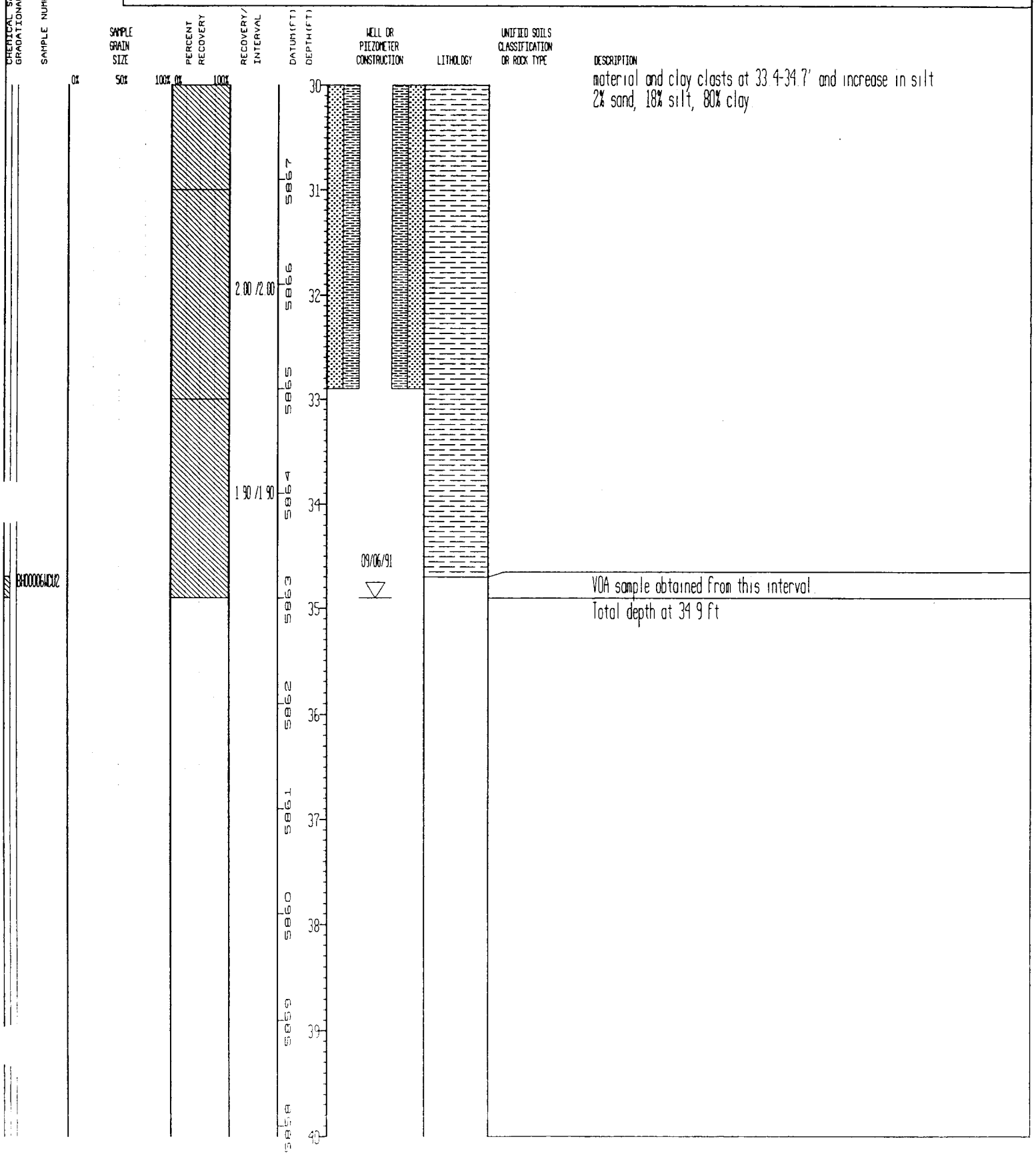


UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
GW	Sandy Gravel - light olive gray (5Y5/2), maximum gravel size 1 1/2", average size 3/4", coarse- to fine-grained sand, well graded, sub-rounded to sub-angular, low plasticity, gravel mainly granite, sand primarily quartz with some mica, K-spar, trace lignitic coal at 21.6' with some iron staining around it, limonite throughout interval and trace caliche, no apparent bedding, dry to moist, weathered 66% gravel, 33% sand, 1% fines. Top of bedrock at 23.3 ft.
SILTY CLAYSTONE	Silty Claystone with some sand - moderate olive brown (5Y4/4), very fine-grained sand, well sorted, sub-rounded, approximately 10% porosity, argillaceous cement and trace caliche cement, slightly friable, dominant lithology sand quartz, trace mica and dark minerals, trace iron staining on grains, trace iron staining throughout interval, no apparent bedding, trace healed fracture at approximately 30 degrees, trace carbon throughout interval, moist, weathered, interval has a highly mottled appearance. 10% sand, 18% silt, 72% clay.
SILTY CLAYSTONE	Silty Claystone with some sand - dark yellowish orange (10YR6/6), very fine-grained sand, well sorted, sub-rounded, approximately 10% porosity, argillaceous cement, slightly friable, dominant lithology sand quartz, no apparent bedding, trace fractures with brown staining, moist, highly weathered iron staining throughout interval. 5% sand, 30% silt, 65% clay
CLAYSTONE	Claystone with some silt and trace sand - dark gray (N3), very fine-grained sand, sub-angular, approximately 7% porosity, sity, argillaceous cement, slightly friable, quartz primary lithology of sand with some iron staining on grains, trace poor horizontal bedding, trace uneven fractures with iron oxide staining, damp, unweathered, well indurated, highly broken at 28.2-29.5', 31.0-31.5', and 32.2-33.4', increase in competence with some horizontal fractures and trace carbonaceous

STATE PLANE COORDINATE:		TOTAL DEPTH (FT) 34.9		GROUND ELEVATION (FT)	5897.90	PROJECT NUMBER:	OU2RI
NORTH:	751639.01	AREA: NE TRENCHES		CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST	2091094.17	LOCATOR NUMBER:	J18	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/05/91

LOG OF BORING NUMBER: 06291

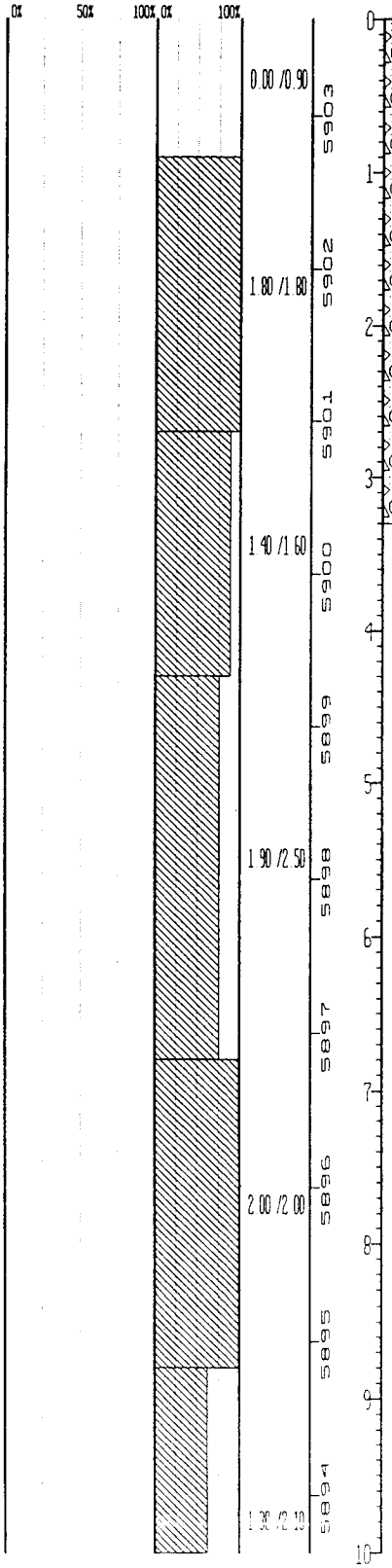
REMARKS: HOLLOW STEM AUGER BENTONITE SEAL 25.9 FT - 22.8 FT NO BACKFILL - WELL CASING SET ON TOTAL DEPTH



STATE PLANE COORDINATE		TOTAL DEPTH (FT): 28.6	GROUND ELEVATION (FT): 5903.63	PROJECT NUMBER: 0U2RI	LOG OF BORING NUMBER:
NORTH:	751197.05	AREA: NE TRENCHES	CASING DIAMETER (IN): 2.0	GEOLOGIST: L.A. GUST	06391
EAST:	2091071.43	LOCATOR NUMBER: J18	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 09/04/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 15.4 FT. - 12.5 FT. BACKFILL MATERIAL: BENTONITE 29.0 FT. - 24.6 FT.

CHEMICAL SAMPL
GRADATIONAL SA
SAMPLE NUMBER
DEPTH

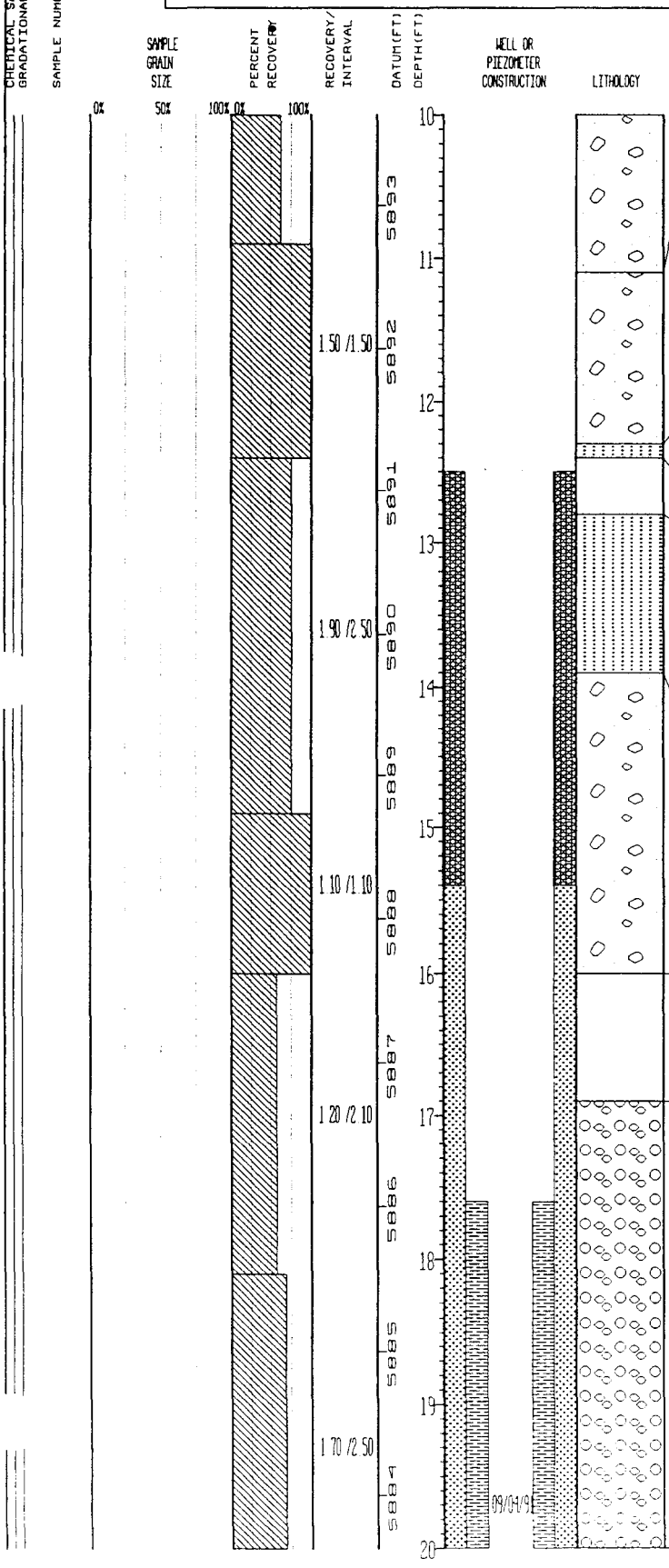


UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	Top soil, start of boring at 0.90 ft.
SP	Organic Gravelly Sand - olive gray (5Y3/2), coarse- to fine-grained sand, average size gravel 1/2" diameter, poorly graded, sub-rounded, low plasticity, dominant lithology sand quartz with some dark minerals, gravel primarily quartzite, no apparent bedding, moist, abundant roots. 20% gravel, 50% sand, 20% fines.
SM	Silty Sand - very light gray (N8), medium- to fine-grained sand, poorly graded, sub-angular, low plasticity, dominant lithology sand quartz, abundant caliche throughout, no apparent bedding, dry. 85% sand, 15% fines.
GW	Sandy Gravel - moderate yellowish brown (10YR5/4), maximum size gravel 3" diameter, average 3/4" diameter, coarse- to fine-grained sand, well graded, angular to sub-angular gravel, sub-rounded sand, low plasticity, gravel primarily quartzite, dominant lithology sand quartz with some rock fragments and trace dark minerals, mica and K-spar, no apparent bedding, moist. 60% gravel, 38% sand, 2% fines.
	No recovery for this interval
GP	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above.
SC	Clayey Sand - moderate yellow brown (10YR5/4), coarse- to fine-grained sand, poorly graded, sub-rounded, low plasticity, dominant lithology sand quartz with trace mica and dark minerals, some caliche throughout interval, no apparent bedding, moist. 82% sand, 18% fines.
GP	Sandy Gravel with some clay - light olive gray (5Y5/2), maximum size gravel 3" diameter, average 1" diameter, coarse- to fine-grained sand, well graded, sub-angular to sub-rounded, low plasticity, gravel primarily quartzite with some quartz, dominant lithology sand quartz with some rock fragments, no apparent bedding, moist. 60% gravel, 35% sand, 15% fines.

STATE PLANE COORDINATE	TOTAL DEPTH (FT) 28.6	GROUND ELEVATION (FT)	5903.63	PROJECT NUMBER	OU2RI
NORTH 751197.05	AREA NE TRENCHES	CASING DIAMETER (IN)	2.0	GEOLOGIST	L.A. GUST
EAST 2091071.43	LOCATOR NUMBER J18	BOREHOLE DIAMETER (IN)	10.0	DATE DRILLED	09/04/91

LOG OF BORING NUMBER: 06391

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 15.4 FT. - 12.5 FT. BACKFILL MATERIAL: BENTONITE 29.0 FT. - 24.6 FT.

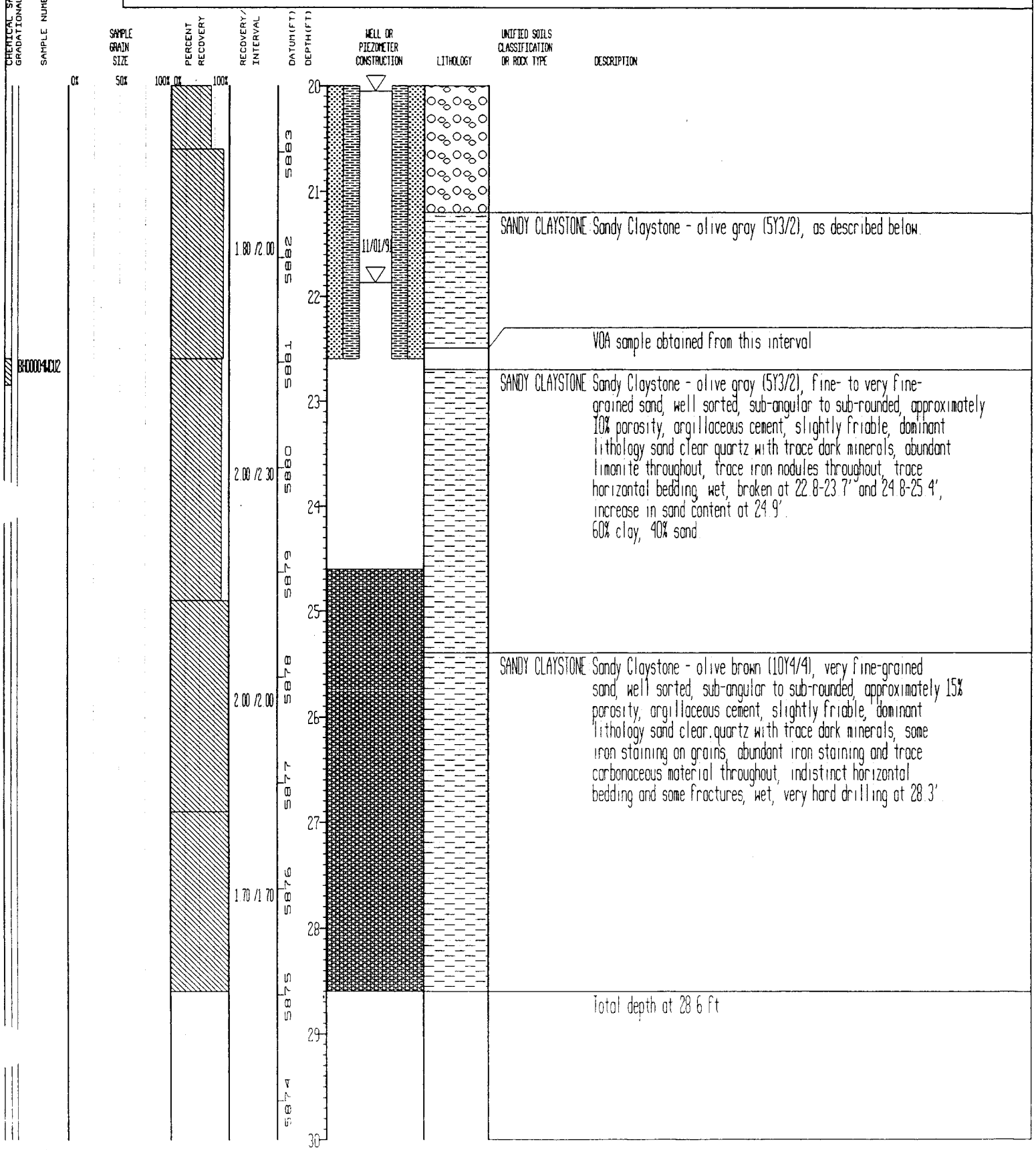


UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
GP	Sandy Gravel with some clay - light olive gray (5Y5/2), maximum size gravel 3" diameter, average 1" diameter, coarse- to fine-grained sand, well graded, sub-angular to sub-rounded, low plasticity, gravel primarily quartzite with some quartz, dominant lithology sand quartz with some rock fragments, no apparent bedding, moist. 60% gravel, 20% sand, 20% fines.
SP	Gravelly Sand - moderate yellowish brown (10YR5/4), as described below.
	No recovery for this interval.
SP	Gravelly Sand - moderate yellow brown (10YR5/4), coarse- to fine-grained sand, maximum size gravel 1" diameter, average 1/2" diameter, poorly graded, sub-rounded, low plasticity, dominant lithology sand quartz with some K-spar, gravel primarily quartz, abundant caliche throughout, no apparent bedding, dry. 15% gravel, 84% sand, 1% fines.
GP	Sandy Gravel with some sand - olive gray (5Y3/2), maximum size gravel 2 1/2" diameter, average 1" diameter, coarse- to fine-grained sand, poorly graded, sub-rounded gravel, sub-angular to sub-round sand, low plasticity, gravel primarily quartzite with some granite, dominant lithology sand quartz with some rock fragments and trace dark minerals and mica, no apparent bedding, dry. 82% gravel, 17% sand, 1% fines.
	No recovery for this interval.
GW	Sandy Gravel - medium gray (N5), maximum size gravel 2" diameter, average 1" diameter, coarse- to fine-grained sand, well graded, sub-angular to sub-rounded, low plasticity, gravel primarily quartzite, dominant lithology sand quartz, no apparent bedding, moist. Top of bedrock at 21.2 ft.

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 28.6	GROUND ELEVATION (FT):	5903.63	PROJECT NUMBER:	OU2RI
NORTH: 751197.05	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST: 2091071.43	LOCATOR NUMBER: J18	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/04/91

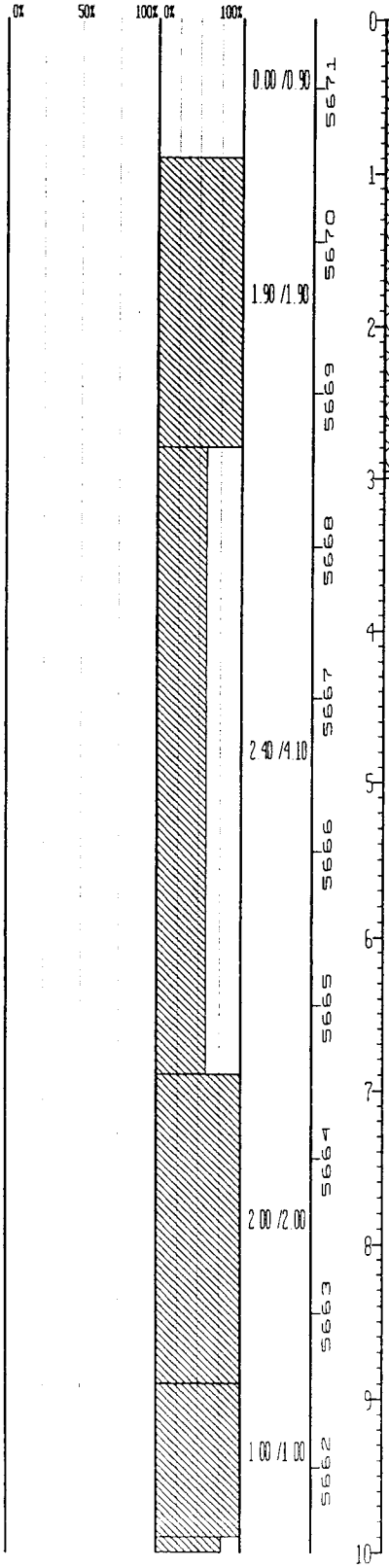
LOG OF BORING NUMBER: 06391

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 15.4 FT. - 12.5 FT. BACKFILL MATERIAL: BENTONITE 29.0 FT. - 24.6 FT.



STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 19.1	GROUND ELEVATION (FT):	5671.45	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	751192.86	AREA: N.E. TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	06491
EAST:	2093867.28	LOCATOR NUMBER: J20	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	08/28/91	
REMARKS:	HOLLOW STEM AUGER.		BACKFILL MATERIAL:	BENTONITE			

CHEMICAL SAMPLE / GRADATIONAL SA. | SAMPLE NUMBER | SAMPLE GRAIN SIZE (0% 50% 100%) | PERCENT RECOVERY (0% 100%) | RECOVERY/INTERVAL | DATUM (FT) | DEPTH (FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION



	Top soil, start of boring at 0.90 ft
SC:	Clayey Sand with some gravel - olive gray (5Y3/2), fine- to very fine-grained sand, 1" diameter gravel, poorly graded, sub-angular, low plasticity, dominant lithology of sand quartz, no apparent bedding, dry, roots and organic material present. 8% gravel, 68% sand, 24% fines. Top of bedrock at 2.2 ft.
SANDY CLAYSTONE:	Sandy Claystone with some silt - olive gray (5Y3/2), very fine-grained sand, moderately sorted, sub-rounded, approximately 10% porosity, argillaceous cement, slightly friable, dominant lithology of sand quartz with trace of mica, some limonite staining and caliche present, no apparent bedding or fracturing, dry, weathered. 41% sand, 12% silt, 47% clay.
	No recovery for this interval.
SILTY CLAYSTONE:	Silty Claystone with some sand - dark yellowish brown (10YR4/2), very fine-grained sand, moderate to well sorted, sub-angular to sub-rounded, approximately 5% porosity, argillaceous cement, slightly friable, dominant lithology of sand quartz, no apparent bedding, trace healed fractures with limonite, moist, weathered, mottled. 10% sand, 18% silt, 72% clay.
CLAYEY SANDSTONE:	Clayey Sandstone with some silt - moderate yellow brown (10YR5/4) and dark yellowish orange (10YR6/6), fine- to very fine-grained sand, moderately sorted, sub-angular, approximately 15% porosity, calcium carbonate cement, slightly friable, dominant lithology of sand quartz, limonite staining, trace of horizontal bedding, trace vertical fracturing with carbonic staining, weathered. 60% sand, 15% silt, 25% clay.
SILTY SANDSTONE:	Silty Sandstone - light olive gray (5Y5/2), fine- to very fine-grained sand, well sorted, sub-rounded, 15%-20% porosity, argillaceous cement, slightly to moderately friable, dominant lithology of sand quartz with trace of pink feldspar and mica, no apparent bedding or fracturing, some clay mottled, massive, limonite staining scattered throughout interval, weathered, dry to moist. 65% sand, 33% silt, 2% clay.
	VOA sample obtained from this interval.
SILTY SANDSTONE:	Silty Sandstone - light olive gray (5Y5/2), as described above.

GH00001WC02

STATE PLANE COORDINATE	TOTAL DEPTH (FT): 19.1	GROUND ELEVATION (FT):	5671.45	PROJECT NUMBER:	OU2RI
NORTH: 751192.86	AREA: N.E. TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST: 2093867.28	LOCATOR NUMBER: J20	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	08/28/91
REMARKS: HOLLOW STEM AUGER		BACKFILL MATERIAL:	BENTONITE		

LOG OF BORING NUMBER: 06491

CHEMICAL SAMPLE
GRADATIONAL SA
DEPTH
SAMPLE NUMBER

SAMPLE GRAIN SIZE: 0% 50% 100%

PERCENT RECOVERY: 0% 100%

RECOVERY/INTERVAL: 1.70 /2.20; 1.60 /1.50; 1.10 /1.10; 0.00 /2.90; 1.50 /1.50

DATUM (FT): 5661, 5660, 5659, 5658, 5657, 5656, 5655, 5654, 5653, 5652

DEPTH (FT): 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20

WELL OR PIEZOMETER CONSTRUCTION

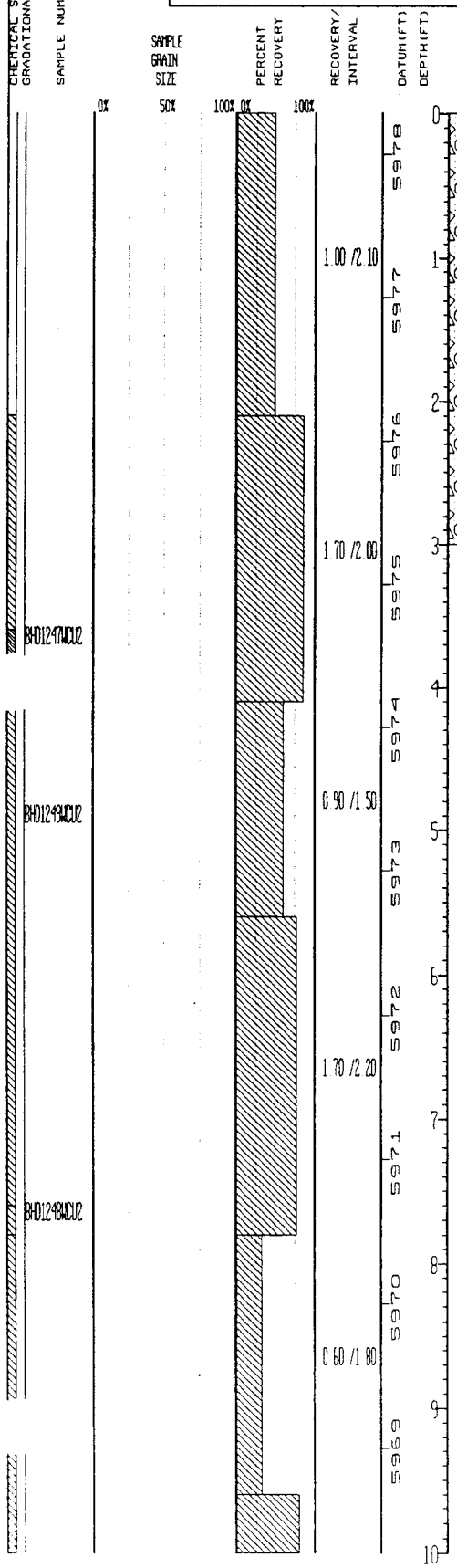
LITHOLOGY

UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
SILTY SANDSTONE	Silty Sandstone - light olive gray (5Y5/2), as described above.
	No recovery for this interval
SILTY SANDSTONE	Silty Sandstone - light olive gray (5Y5/2), as described above.
SANDY CLAYSTONE	Sandy Claystone with some silt - olive gray (5Y4/1), very fine-grained sand, well sorted, sub-rounded, approximately 10% porosity, argillaceous cement, slightly to moderately friable, dominant lithology of sand quartz with trace mica, no apparent bedding or fracturing, localized limonite staining, very moist 30% sand, 21% silt, 49% clay
	No recovery for this interval.
SANDY CLAYSTONE	Sandy Claystone with some silt - olive gray (5Y4/1), as described above, trace of gravel at 17.6', lignitic coal bed at 18.6-18.7' black, dominant lithology around coal is quartz with trace of mica iron oxide staining around coal
	Total depth at 19.1 ft

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 52.2	GROUND ELEVATION (FT):	5978.28	PROJECT NUMBER:	002/RI	LOG OF BORING NUMBER:
NORTH:	749063.87	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	06591
EAST:	2085534.81	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/02/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 29.0 FT. - 26.0 FT. BACKFILL MATERIAL: BENTONITE 52.2 FT. - 50.0 FT.

* = GRAIN SIZE DISTRIBUTION AND DESCRIPTION ESTIMATED



	Top soil, start of boring at 0.90 ft.
CL	Gravelly Clay with some silt and sand * - grayish red (5R4/2), maximum gravel diameter .2', average .1', fine-grained sand, well graded, sub-rounded to rounded, moderate to high plasticity, gravel is primarily quartzite, sand contains abundant quartz, some rock fragments, feldspar, moist. *20% gravel, 10% sand, 20% silt, 50% clay.
GM	Silty Gravel with some clay and sand - light brown (5YR6/4), as described below.
	No recovery for this interval.
GM	Silty Gravel with some clay and sand - light brown (5YR6/4), maximum gravel diameter > .25', average .08', fine- to coarse-grained sand, well graded, gravel is fractured or rounded, sand is angular to sub-rounded, low plasticity, gravel is primarily quartzite, sand contains abundant quartz, rock fragments, dark minerals, some feldspar, trace mica, moist. 51% gravel, 14% sand, 21% silt, 14% clay.
	VOA sample obtained from this interval.
	No recovery for this interval.
GM	Silty Gravel with some sand and clay - light brown (5YR6/4) to moderate brown (5YR4/4), as described below.
	No recovery for this interval.
GM	Silty Gravel with some sand and clay - light brown (5YR6/4) to moderate brown (5YR4/4), maximum gravel diameter .21', average .11', fine- to coarse-grained sand, well graded, gravel is fractured to sub-angular, sand is angular to sub-rounded, low plasticity, gravel is primarily quartzite with some .1'x.1' clasts of silty arkosic arenite at 7.0' and granite at 9.8-10.0', sand contains abundant quartz, rock fragments, some feldspar, dark minerals, trace biotite, muscovite, kaolinized feldspar, increased kaolinized feldspar at 6.9-7.6', moist. 60% gravel, 15% sand, 16% silt, 9% clay.
	VOA sample obtained from this interval.
	No recovery for this interval.
GM	Silty Gravel with some sand and clay - light brown (5YR6/4) to moderate brown (5YR4/4), as described above.

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 52.2	GROUND ELEVATION (FT):	5978.28	PROJECT NUMBER:	OU2/RI
NORTH: 749063.87	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST: 2085534.81	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/02/92

LOG OF BORING NUMBER: 06591

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 29.0 FT. - 26.0 FT. BACKFILL MATERIAL: BENTONITE 52.2 FT. - 50.0 FT.

* = GRAIN SIZE DISTRIBUTION AND DESCRIPTION ESTIMATED.

DEPTH	CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		BH01251WC02			2.00 /2.50	5968	10			GC	Clayey Gravel with some sand and silt - moderate yellowish brown (10YR5/4), maximum gravel diameter .21', average .05', fine- to coarse-grained sand, well graded, gravel is fractured, sand is angular to sub-rounded, low to moderate plasticity, gravel is primarily quartzite with some disaggregated weathered granite and .18'x.10' clast of weathered claystone at 12.2', sand contains abundant quartz, some rock fragments, feldspar, trace dark minerals, mica, kaolinized feldspar, increased sand content, decreased gravel content at 10.0-11.7', 13.0-13.7', abundant petroleum product (?) throughout, especially at 13.4', moist 49% gravel, 12% sand, 8% silt, 31% clay
		BH01250WC02				5967	11				
						5966	12				No recovery for this interval
					1.70 /1.90	5965	13			GC	Clayey Gravel with some sand and silt - moderate yellowish brown (10YR5/4), as described above
							14				No recovery for this interval
						5964				CL	Sandy Clay with some gravel and silt - light brown (5YR6/4) to pale olive (10Y6/2), maximum gravel diameter .18', average .07', fine- to coarse-grained sand, well graded, gravel is rounded, sand is angular to sub-angular, low to moderate plasticity, gravel is primarily quartzite, sand contains abundant quartz, some feldspar, rock fragments, dark minerals, kaolinized feldspar, trace mica, iron stain, mottled alluvial and bedrock material, contact with underlying bedrock sharp with alluvial sand loaded into bedrock, > .07' flame structure, moist to wet 16% gravel, 19% sand, 16% silt, 49% clay Top of bedrock at 15.4 ft
					2.00 /2.00	5963	15				
		BH01253WC02									
						5962	16			SANDY CLAYSTONE	Sandy Claystone with some silt - yellowish gray (5Y8/1), as described below
											VOA sample obtained from this interval
		BH01255WC02			1.50 /2.00	5961	17			SANDY CLAYSTONE	Sandy Claystone with some silt - yellowish gray (5Y8/1), as described below
											No recovery for this interval
						5960	18			SANDY CLAYSTONE	Sandy Claystone with some silt - yellowish gray (5Y8/1), as described below
					2.00 /1.40						VOA sample obtained from this interval
							19			SANDY CLAYSTONE	Sandy Claystone with some silt - yellowish gray (5Y8/1) at 15.4-16.0', 17.0-17.5', otherwise pale yellowish orange (10YR8/6), dark yellowish orange (10YR6/6) where iron stained at 16.3-16.9', very fine- to fine-grained, well sorted, sub-rounded to well rounded, approximately 9% porosity, argillaceous cement, highly friable, sand contains abundant frosted quartz, iron stain, some dark minerals/rock
		..W1254WC02			0.50 /0.50	5959					
							20				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 52.2	GROUND ELEVATION (FT):	5978.28	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749063.87	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	06591
EAST:	2085534.81	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/02/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 29.0 FT. - 26.0 FT. BACKFILL MATERIAL: BENTONITE 52.2 FT. - 50.0 FT.

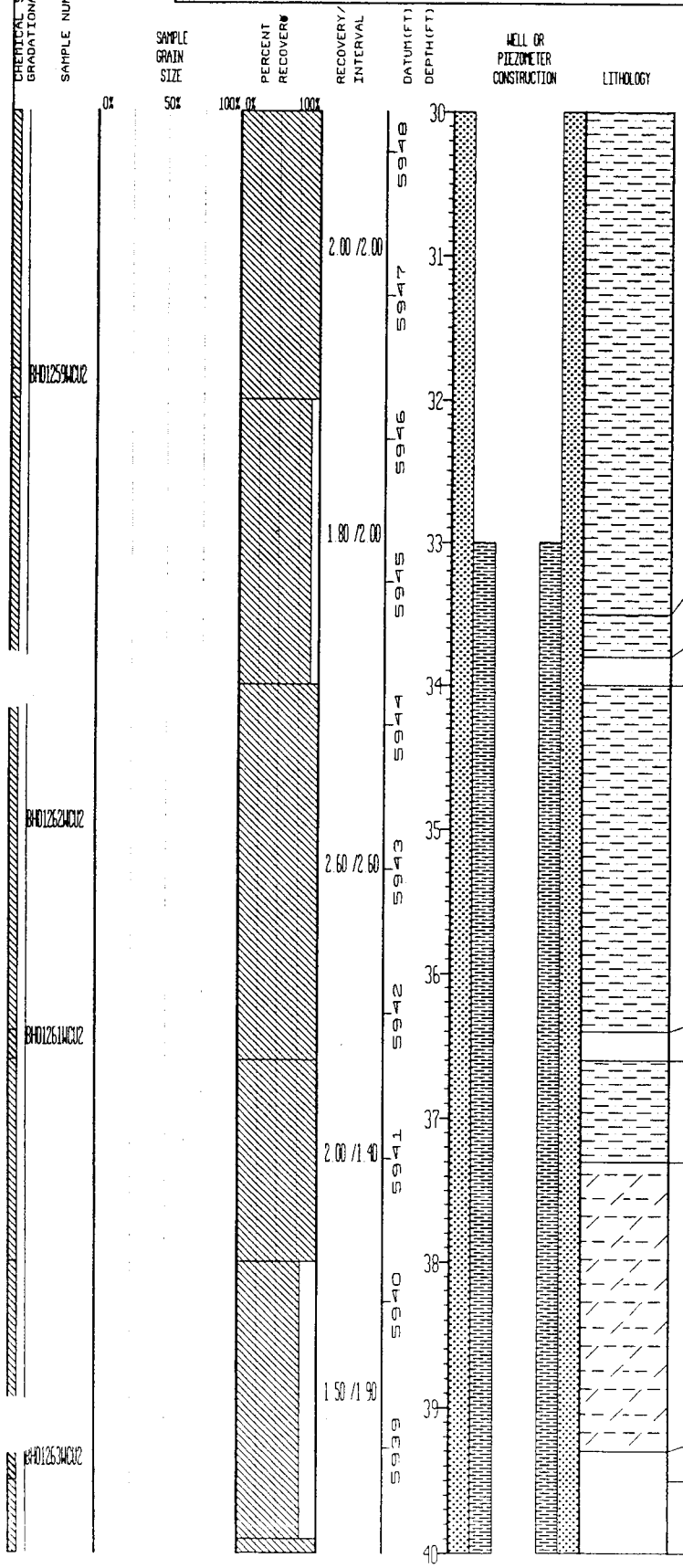
* = GRAIN SIZE DISTRIBUTION AND DESCRIPTION ESTIMATED

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%			20				fragments, feldspar, trace kaolinized feldspar, mica, thinly laminated with carbonaceous material along laminea at 17.0-17.5', 85 degree fracture with abundant carbonaceous material (petroleum product ?) at 17.0-17.5', faint cross-laminations at 18.4', faintly thinly laminated to thinly bedded, moist. 28% sand, 15% silt, 57% clay
				0.80 /1.90	5958	21				No recovery for this interval.
					5957				SANDY CLAYSTONE	Sandy Claystone with some silt - yellowish gray (5Y8/1), as described above
					5956	22				
				1.50 /2.20						
	BH01256WC02					23				VOA sample obtained from this interval
	BH01257WC02				5955					No recovery for this interval
					5954	24			SANDY CLAYSTONE	Sandy Claystone with some silt - grayish orange (10YR7/4) to very light gray (N8), as described below
				2.00 /3.00	5953	25				
					5952	26				No recovery for this interval
									SANDY CLAYSTONE	Sandy Claystone with some silt - grayish orange (10YR7/4) to very light gray (N8), as described below
										VOA sample obtained from this interval
				1.20 /1.00	5951	27			SANDY CLAYSTONE	Sandy Claystone with some silt - grayish orange (10YR7/4) to very light gray (N8), dark yellowish orange (10YR6/6) where iron stained at 25.8', 27.0-27.4', 29.3-29.5', 31.3-31.4', 33.0-33.5', very fine- to fine-grained, well sorted, sub-rounded, approximately 11% porosity, argillaceous cement, moderately friable, abundant frosted quartz, some dark minerals/rock fragments, feldspar, trace kaolinized feldspar, thinly laminated to thinly bedded, 60 degree fracture filled with clay at 24.9-25.2', irregular iron stained consolidated sand laminea draped on clay- possible paleo exposure surface at 25.8', discordent iron and manganese oxide stained fractures at 27.0-27.4', 40 degree iron stained fracture at 29.3-29.5', increased clay beds with iron stain and nodules at 31.3-31.4', interbedded sandy clay and clay at 30.9-33.5', unit generally coarsens up, moist 28% sand, 11% silt, 61% clay
	BH01258WC02				5950	28				
				2.00 /2.00	5949	29				
	BH01260WC02					30				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 52.2	GROUND ELEVATION (FT): 5978.28	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:
NORTH: 749063.87	AREA: 903 PAD	CASING DIAMETER (IN): 2.0	GEOLOGIST: J.P. O'BRIEN	06591
EAST: 2085534.81	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 03/02/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 29.0 FT. - 26.0 FT. BACKFILL MATERIAL: BENTONITE 52.2 FT. - 50.0 FT.

* = GRAIN SIZE DISTRIBUTION AND DESCRIPTION ESTIMATED.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
SANDY CLAYSTONE	Sandy Claystone with some silt - light olive gray (5Y6/1) to medium gray (N5) sandy clay, as described below
	No recovery for this interval
SANDY CLAYSTONE	Sandy Claystone with some silt - light olive gray (5Y6/1) to medium gray (N5), sandy clay interbedded with pale yellowish orange (10YR8/6) clayey sand, very fine- to fine-grained, well sorted, sub-rounded to rounded, approximately 12% porosity, argillaceous cement, highly friable, abundant frosted quartz, some dark minerals/rock fragments, feldspar, iron stain, trace mica, sand is medium bedded to thinly laminated with carbonaceous material along laminea, clay beds at 33.5-33.8', 35.4-35.8', 36.0-36.4', 36.9-37.5', moist 30% sand, 18% silt, 52% clay
	VOA sample obtained from this interval
SANDY CLAYSTONE	Sandy Claystone with some silt - light olive gray (5Y6/1) to medium gray (N5), as described above
SILTY CLAYSTONE	Silty Claystone with some sand - pale yellowish orange (10YR8/6), very fine- to fine-grained, well sorted, rounded to well rounded, approximately 8% porosity, argillaceous cement, moderately to highly friable, abundant frosted quartz, iron stain, some feldspar, dark minerals/rock fragments, trace medium-grained sized mica flakes, laminea dip at approximately 15 degrees at 37.3-38.0', 07' flame structure at 37.4', clay bed thickness, frequency, and iron stain decreases up, unit generally coarsens up, moist to wet 21% sand, 24% silt, 55% clay
	VOA sample obtained from this interval
	No recovery for this interval

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 52.2	GROUND ELEVATION (FT): 5978.28	PROJECT NUMBER: 002/RI	LOG OF BORING NUMBER:	
NORTH: 749063.87	AREA: 903 PAD	CASING DIAMETER (IN): 2.0	GEOLOGIST: J.P. O'BRIEN	06591	
EAST: 2085534.81	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 03/02/92		

REMARKS: HOLLOW-STEM AUGER BENTONITE SEAL 29.0 FT. - 26.0 FT. BACKFILL MATERIAL: BENTONITE 52.2 FT. - 50.0 FT.

* = GRAIN SIZE DISTRIBUTION AND DESCRIPTION ESTIMATED.

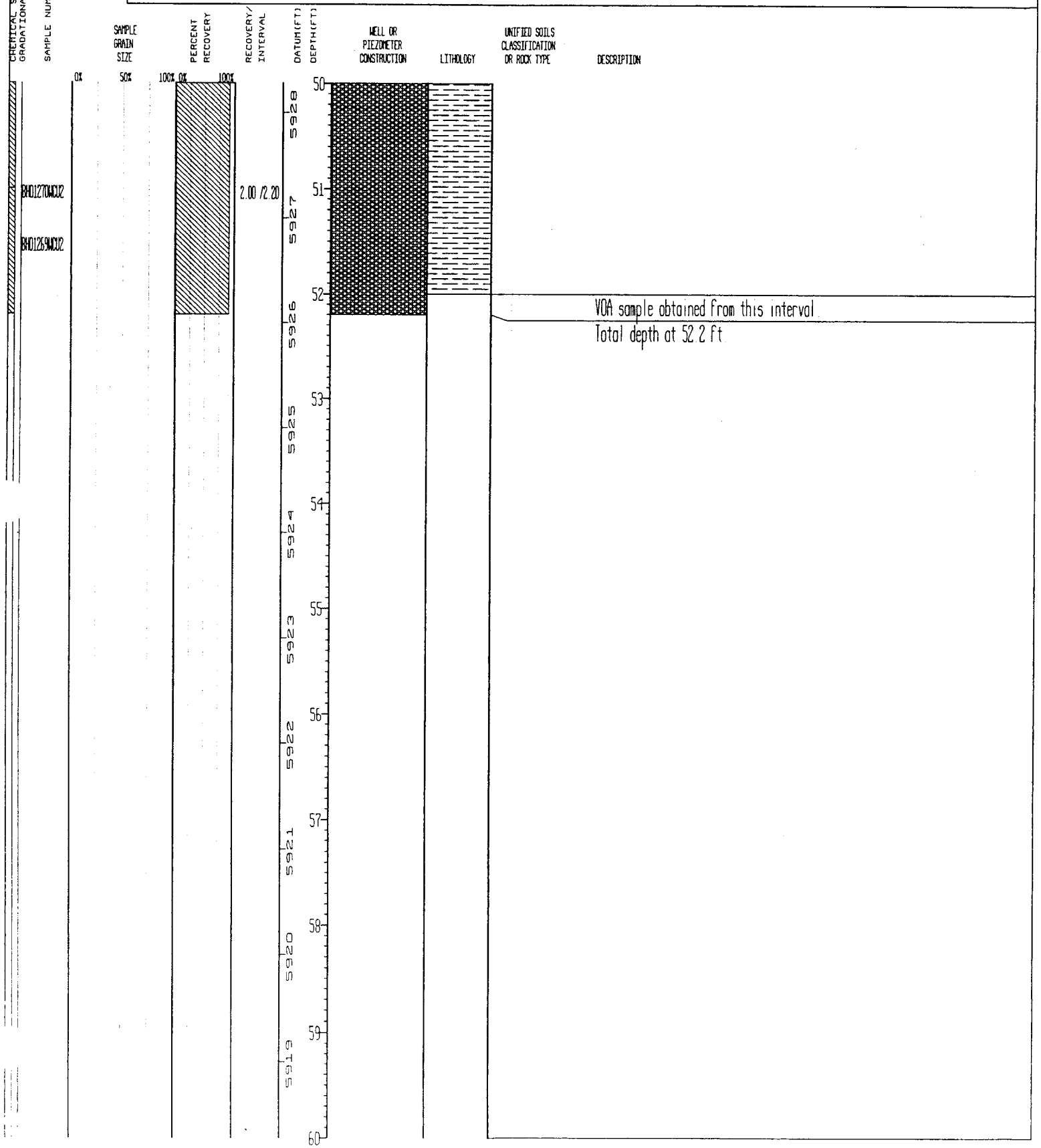
DEPTH	CHEMICAL SAMPL GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			0% 50% 100%	0% 100%							
		BH01263WC02			2.10 /2.10	5938 5937	40 41			SILTY CLAYSTONE	Silty Claystone with some sand - pale yellowish orange (10YR8/6), as described above.
		BH01264WC02			1.70 /2.00	5936 5935	42 43			SANDY CLAYSTONE	Sandy Claystone with some silt - dark gray (N3) to light gray (N7), very fine- to fine-grained, well to very well sorted, sub-rounded to well rounded, approximately 9% porosity, argillaceous cement, moderately friable, abundant frosted quartz, some dark minerals, trace feldspar, mica, thinly to moderately bedded, fines up, dry to moist 25% sand, 12% silt, 63% clay
											VOA sample obtained from this interval.
											No recovery for this interval
		BH01268WC02			2.00 /2.00	5934 5933	44 45			SANDY CLAYSTONE	Sandy Claystone with some silt - light olive gray (5Y6/1) with some dark yellowish orange (10YR6/6) iron stain, very fine- to fine-grained, well sorted, rounded to well rounded, approximately 7% porosity, argillaceous cement, highly friable, abundant frosted quartz, some iron stain, dark minerals/rock fragments, trace feldspar, unconsolidated, little original bedding preserved, re-working could be from drilling activities, probably saturated (no rig geologist description) 21% sand, 9% silt, 70% clay
		BH01267WC02			1.50 /2.00	5932 5931	46 47			CLAYSTONE	Claystone - dark gray (N3), as described above
											VOA sample obtained from this interval.
											No recovery for this interval
					2.00 /2.00	5930 5929	48 49 50			CLAYSTONE	Claystone - dark gray (N3), very fine-grained, very well sorted, sub-angular to sub-rounded, approximately 2% porosity, argillaceous cement, moderately to highly friable, abundant frosted quartz, some dark minerals, carbonaceous material - fossil hash at 47.0-47.5', highly friable with little original bedding preserved, carbon rich at 48.8-52.0', probably dry to moist (no rig geologist description) 5% sand, 5% silt, 90% clay

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 52.2	GROUND ELEVATION (FT):	5978.28	PROJECT NUMBER:	OU2/RI
NORTH: 749063.87	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST: 2085534.81	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/02/92

LOG OF BORING NUMBER: 06591

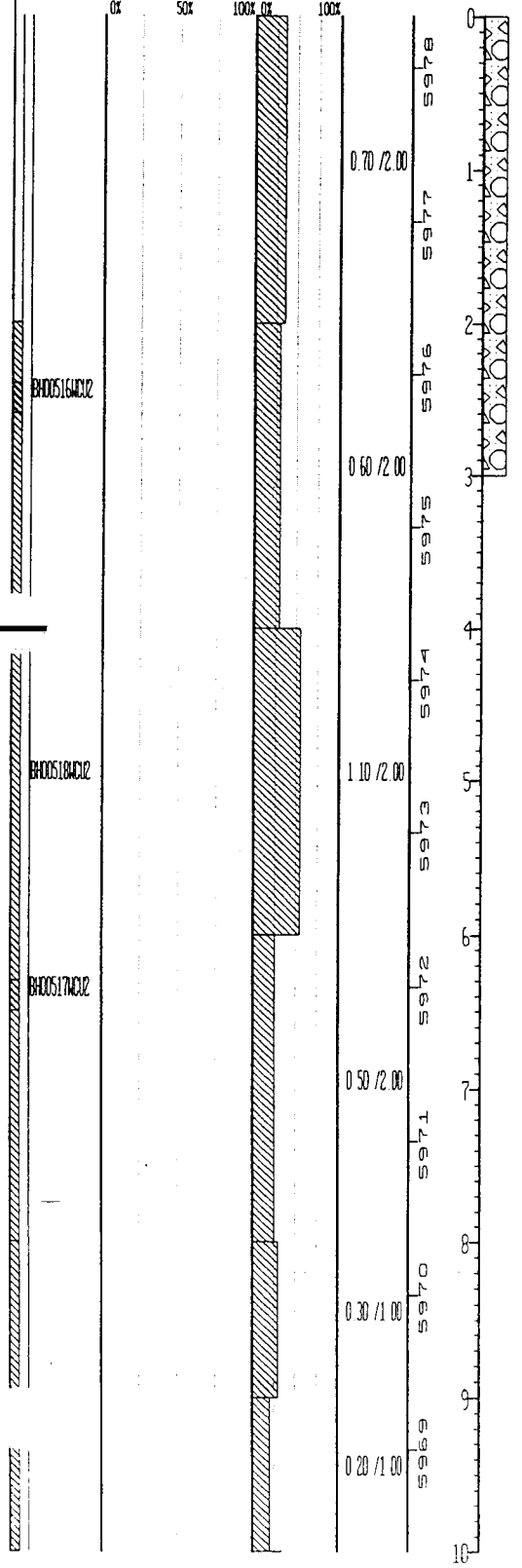
REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 29.0 FT. - 26.0 FT. BACKFILL MATERIAL: BENTONITE 52.2 FT. - 50.0 FT.

* = GRAIN SIZE DISTRIBUTION AND DESCRIPTION ESTIMATED.



STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 28.0	GROUND ELEVATION (FT):	5978.34	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749067.87	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	06691
EAST:	2085714.44	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/26/92	

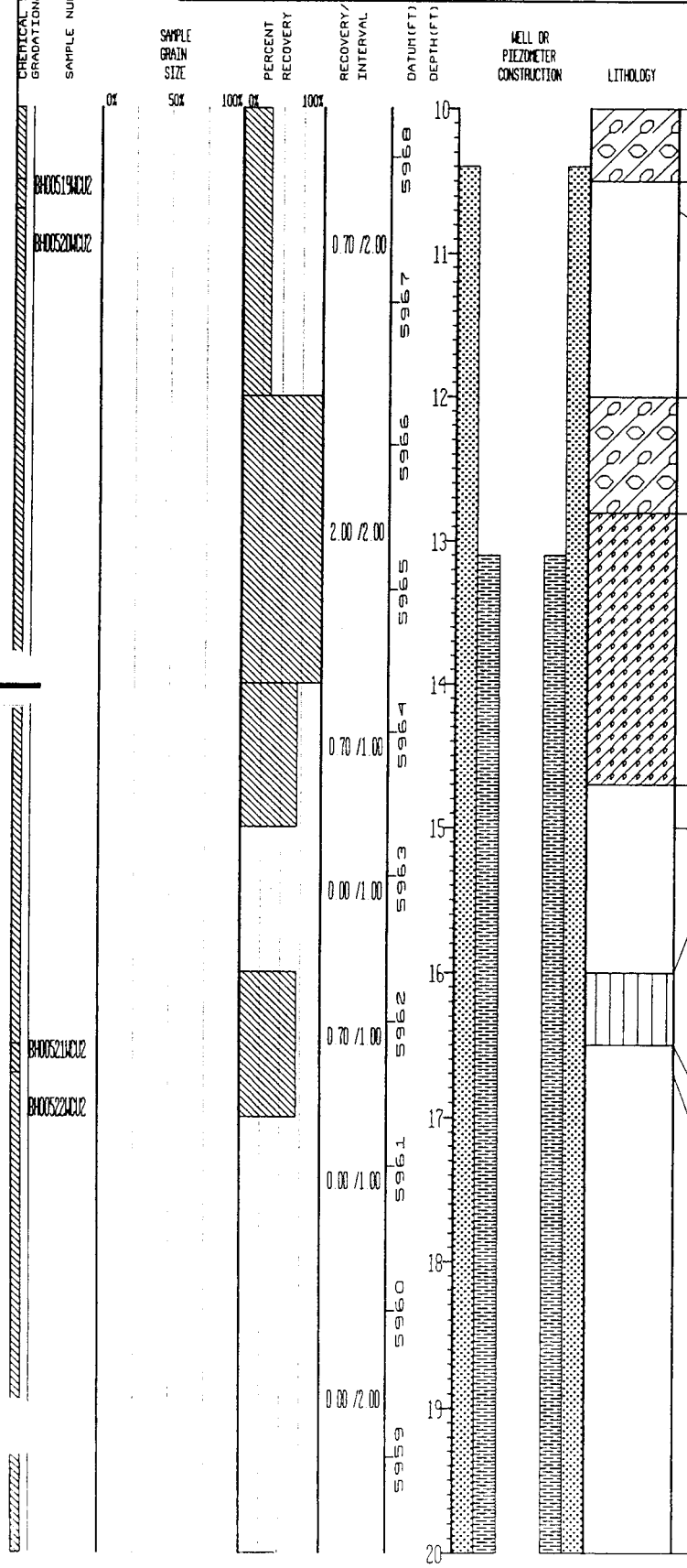
REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 28.4 FT. - 25.1 FT.
GRAIN SIZE DISTRIBUTIONS AND DESCRIPTIONS ESTIMATED. RAD SCREEN RESULTS OVER 50 pi/g



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	Top soil, start of boring at 0.90 ft.
GM	Sandy Gravel with some silt and clay - light olive gray (5Y6/1), maximum gravel diameter .22', average .11', fine- to coarse-grained sand, well graded, angular to rounded, low plasticity, gravel is primarily quartzite, sand contains abundant carbonaceous/organic material, quartz, rock fragments, some petroleum product at 1.5', dry. 55% gravel, 20% sand, 15% silt, 10% clay
	No recovery for this interval.
GM	Sandy Gravel with some silt and clay - light olive gray (5Y6/1), as described above
CL	Sandy Clay with some gravel and silt - very pale orange (10YR8/2), as described below
	VOA sample obtained from this interval.
	No recovery for this interval.
CL	Sandy Clay with some gravel and silt - very pale orange (10YR8/2), maximum gravel diameter .2', average .04', fine- to coarse-grained sand, well graded, angular to sub-rounded, high plasticity, gravel is primarily quartzite, sand contains abundant calcrete/caliche, quartzite, some rock fragments, dry. 15% gravel, 25% sand, 15% silt, 45% clay
GC	Sandy Gravel with some clay and silt - grayish orange (10YR7/4) at 4.8-6.0', light brown (5YR5/6), as described below
	No recovery for this interval
GC	Sandy Gravel with some clay and silt - grayish orange (10YR7/4) at 4.8-6.0', light brown (5YR5/6), maximum gravel diameter > .25', average .11', fine- to coarse-grained sand, well graded, angular to sub-rounded, low to moderate plasticity, gravel is primarily quartzite, sand contains abundant quartz, some rock fragments, iron stain, feldspar, kaolinized feldspar, 1'x 1' clast of yellowish gray silty clay (possible re-worked bedrock) at 9.1', some petroleum product (?) at 9.5-10.5', dry to moist. 60% gravel, 20% sand, 7% silt, 13% clay
	VOA sample obtained from this interval
	No recovery for this interval
GC	Sandy Gravel with some clay and silt - light brown (5YR5/6), as described above
	No recovery for this interval
GC	Sandy Gravel with some clay and silt - light brown (5YR5/6), as described above
	No recovery for this interval

STATE PLANE COORDINATE		TOTAL DEPTH (FT): 28.0	GROUND ELEVATION (FT):	5978.34	PROJECT NUMBER:	002/RI	LOG OF BORING NUMBER:
NORTH:	749067.87	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	06691
EAST:	2085714.44	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/26/92	

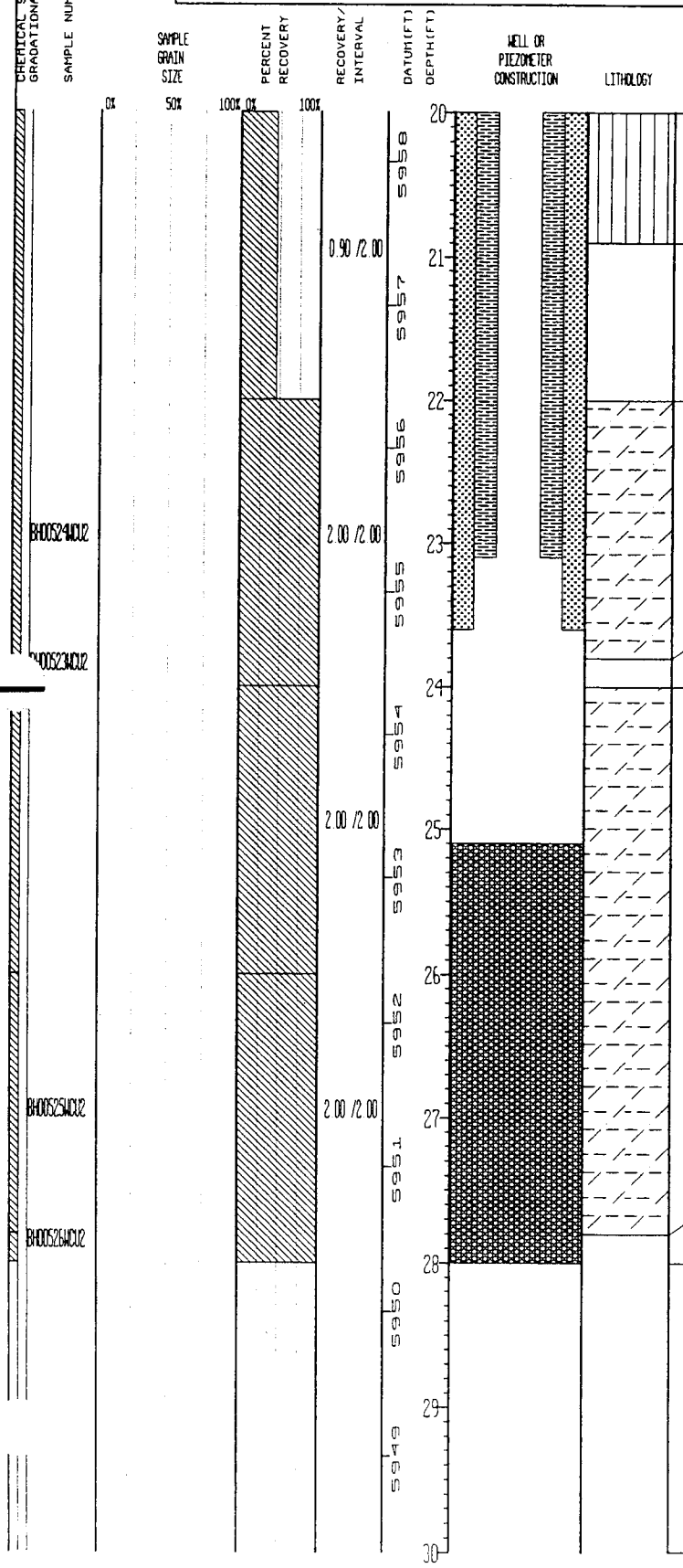
REMARKS: HOLLOW-STEM AUGER BACKFILL MATERIAL: BENTONITE 28.4 FT. - 25.1 FT.
GRAIN SIZE DISTRIBUTIONS AND DESCRIPTIONS ESTIMATED. RAD SCREEN RESULTS OVER 50 pi/g.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
GC	Sandy Gravel with some clay and silt - light brown (5YR5/6), as described above.
	VOA sample obtained from this interval.
	No recovery for this interval
GC	Sandy Gravel with some clay and silt - light brown (5YR5/6), as described above.
SC	Clayey Sand with some gravel and silt - yellowish gray (5Y7/2) to light brown (5YR6/4), maximum gravel diameter > .25', average .04', fine- to coarse-grained sand, well graded, sub-rounded, moderate plasticity, gravel is primarily quartzite, sand contains abundant quartz, some rock fragments, feldspar, kaolinized feldspar, interval appears to be re-worked bedrock and alluvial material, increased gravel content, decreased sand, silt, clay at 14.0-14.5', moist to wet 25% gravel, 35% sand, 10% silt, 30% clay
	No recovery for this interval
	No recovery for this interval
ML	Clayey Silt with some sand and gravel - grayish orange (10YR7/4) to moderate yellowish brown (10YR5/4), maximum gravel diameter .1', average .03', fine- to coarse-grained sand, well graded, angular to sub-rounded, low plasticity, gravel is primarily quartzite, sand contains abundant quartz, some rock fragments, iron stain, wet 20% gravel, 25% sand, 30% silt, 25% clay
	VOA sample obtained from this interval
	No recovery for this interval

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 28.0	GROUND ELEVATION (FT):	5978.34	PROJECT NUMBER:	002/RI	LOG OF BORING NUMBER:
NORTH:	749067.87	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	06691
EAST:	2085714.44	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/26/92	

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 28.4 FT. - 25.1 FT.
GRAIN SIZE DISTRIBUTIONS AND DESCRIPTIONS ESTIMATED. RAD SCREEN RESULTS OVER 50 pi/g.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
ML	Clayey Silt with some sand and gravel - grayish orange (10YR7/4) to moderate yellowish brown (10YR5/4), as described above.
	No recovery for this interval. Top of bedrock at 22.0 ft.
SILTY CLAYSTONE	Silty Claystone with some sand - yellowish gray (5Y7/2) to light olive gray (5Y5/2), as described below.
	VOA sample obtained from this interval
SILTY CLAYSTONE	Silty Claystone with some sand - yellowish gray (5Y7/2) to light olive gray (5Y5/2), dark yellowish orange (10YR6/6) where iron stained at 22.0-23.5', 26.0-27.8', very fine-grained, very well sorted, sub-angular, approximately 4% porosity, argillaceous cement, slightly friable, abundant frosted quartz, dark minerals, iron stain, iron stain concordent with clay laminea, sand laminea throughout, thinly bedded to thinly laminated, mottled at 26.0-28.0', moist to dry. 12% sand, 15% silt, 73% clay.
	VOA sample obtained from this interval
	Total depth at 28.0 ft.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 28.0	GROUND ELEVATION (FT):	5978.87	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	748854.61	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	06791
EAST:	2085645.63	LOCATOR NUMBER: 612	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/20/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 8.7 FT. - 5.2 FT. BACKFILL MATERIAL: BENTONITE 28.0 FT. - 23.2 FT.

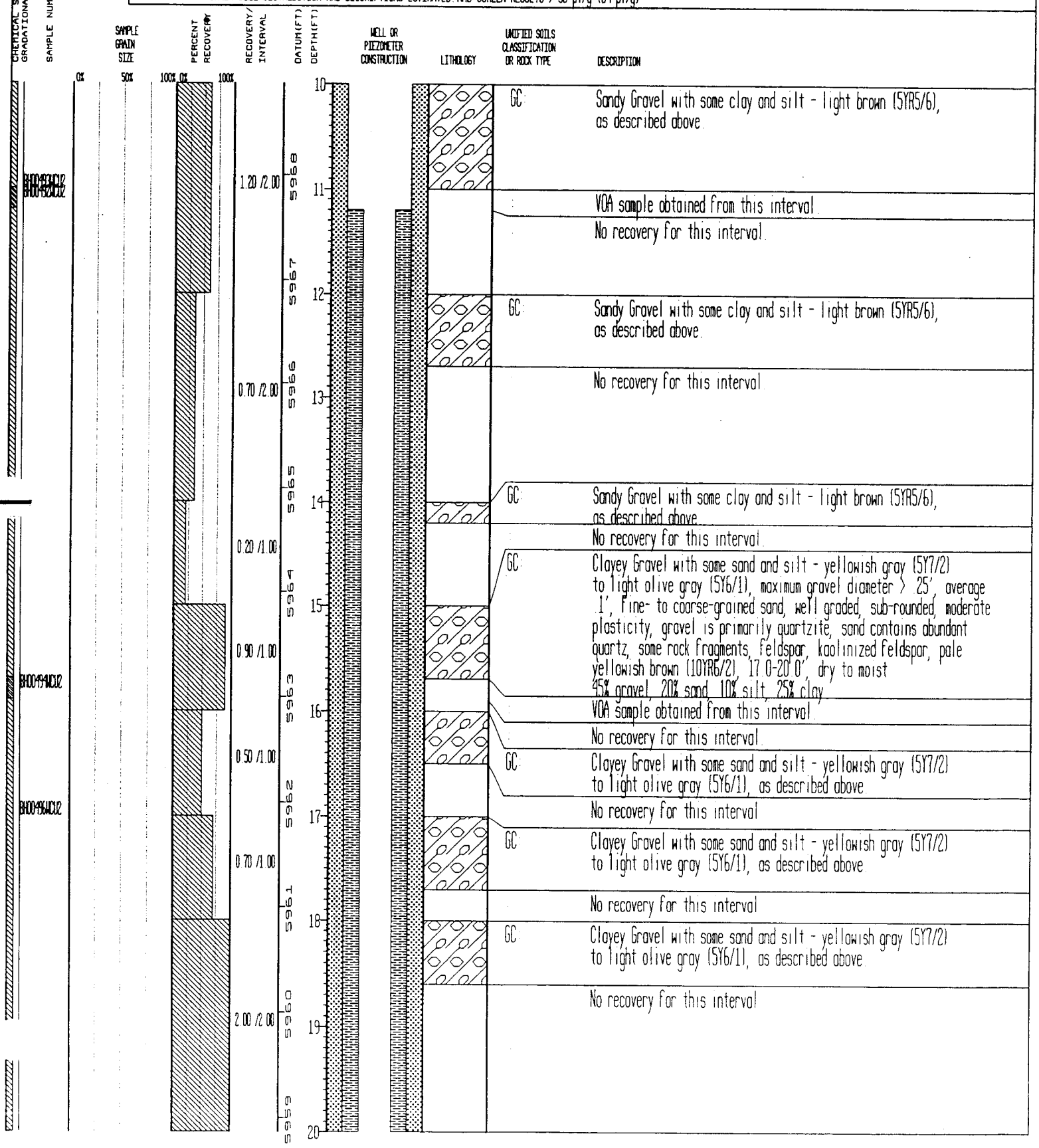
* = GRAIN SIZE DISTRIBUTION AND DESCRIPTIONS ESTIMATED. RAD SCREEN RESULTS > 50 pi/g (64 pi/g)

DEPTH	CHEMICAL SAMPLE / GRADATIONAL G.	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
							0				Top soil, start of boring at 0.90 ft.
					0.30 /2.00	5978	1			GM:	Silty Gravel with some sand and clay - grayish brown (5YR3/2), maximum gravel diameter > .25', average .07', fine- to medium-grained sand, well graded, gravel is rounded, sand is sub-angular, low plasticity, gravel is primarily quartzite with some calcrete, sand contains abundant carbonaceous/organic material, quartz, some rock fragments, calcite/calcrete, calcite nodules throughout, moist. 55% gravel, 15% sand, 20% silt, 10% clay.
						5977					No recovery for this interval.
		BH0488VC02					2			GM:	Silty Gravel with some sand and clay - grayish brown (5YR3/2), as described above.
											VOA sample obtained from this interval.
						5976					No recovery for this interval.
					0.40 /2.00		3			GC:	Sandy Gravel with some clay and silt - light brown (5YR5/6), maximum gravel diameter .2", average .08", fine- to coarse-grained sand, well graded, sub-angular to sub-rounded, low to moderate plasticity, gravel is primarily quartzite, sand contains abundant quartz, some rock fragments, feldspar, kaolinized feldspar, yellowish gray (5Y7/2) re-worked bedrock material and alluvium with abundant caliche nodules at 8.1-8.6', increased kaolinized feldspar at 10.0-14.0', dry to moist. 40% gravel, 25% sand, 15% silt, 20% clay.
						5975	4				
		BH0490VC02			0.30 /2.00	5974	5				No recovery for this interval.
						5973	6			GC:	Sandy Gravel with some clay and silt - light brown (5YR5/6), as described above.
		BH0489VC02									VOA sample obtained from this interval.
					0.60 /2.00	5972	7				No recovery for this interval.
						5971	8			GC:	Sandy Gravel with some clay and silt - light brown (5YR5/6), as described above.
					0.70 /1.00	5970					No recovery for this interval.
							9			GC:	Sandy Gravel with some clay and silt - light brown (5YR5/6), as described above.
					0.30 /1.00	5969	10				No recovery for this interval.

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 28.0	GROUND ELEVATION (FT):	5978.87	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 748854.61	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	06791
EAST: 2085645.63	LOCATOR NUMBER: 612	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/20/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 8.7 FT. - 5.2 FT. BACKFILL MATERIAL: BENTONITE 28.0 FT. - 23.2 FT.

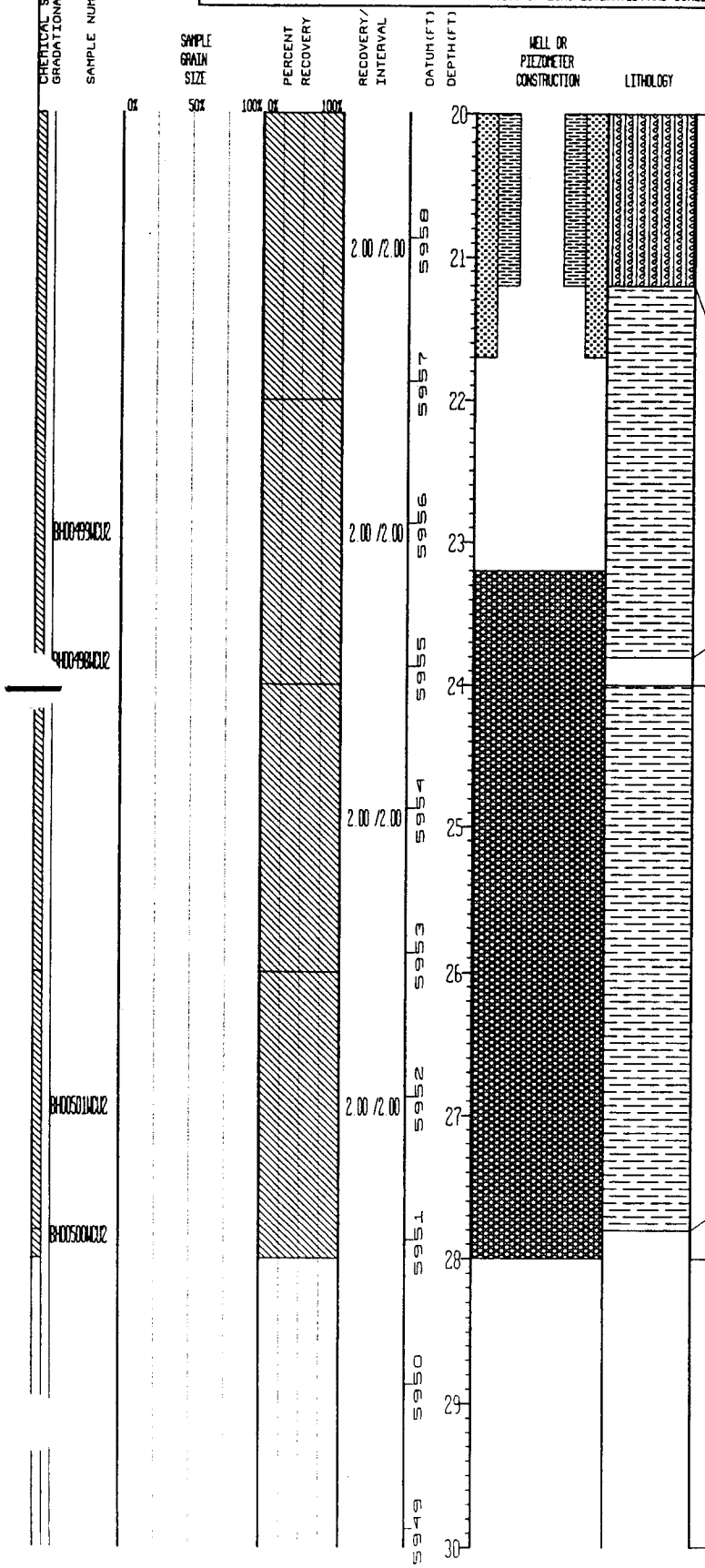
* = GRAIN SIZE DISTRIBUTION AND DESCRIPTIONS ESTIMATED. RAD SCREEN RESULTS > 50 pi/g (64 pi/g)



STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 28.0	GROUND ELEVATION (FT):	5978.87	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 748854.61	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	06791
EAST: 2085645.63	LOCATOR NUMBER: 612	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/20/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 8.7 FT. - 5.2 FT. BACKFILL MATERIAL: BENTONITE 28.0 FT. - 23.2 FT.

* = GRAIN SIZE DISTRIBUTION AND DESCRIPTIONS ESTIMATED. RAD SCREEN RESULTS > 50 pi/g (64 pi/g)



SM: Silty Sand with some gravel and clay - light brown (5YR6/4), maximum gravel diameter .19', average .07', fine-grained sand, well graded, sub-rounded, low plasticity, gravel is primarily quartzite, sand contains abundant quartz, some rock fragments, kaolinized feldspar, feldspar, wet to saturated, contact with underlying bedrock sharp.
25% gravel, 40% sand, 25% silt, 10% clay.
Top of bedrock at 21.2 ft.

CLAYSTONE: Claystone with some silt - olive gray (5Y4/1) to grayish orange (10YR7/4), very fine-grained, very well sorted, sub-angular, approximately 4% porosity, argillaceous cement, slightly friable, abundant frosted quartz, dark minerals, caliche nodules at 22.3', iron stain and nodules at 27.5', 25.0', thin bed of silty sand at 26.5-26.7', moist to wet.
3% sand, 10% silt, 87% clay.

VOA sample obtained from this interval.

CLAYSTONE: Claystone with some silt - olive gray (5Y4/1) to grayish orange (10YR7/4), as described above.

VOA sample obtained from this interval

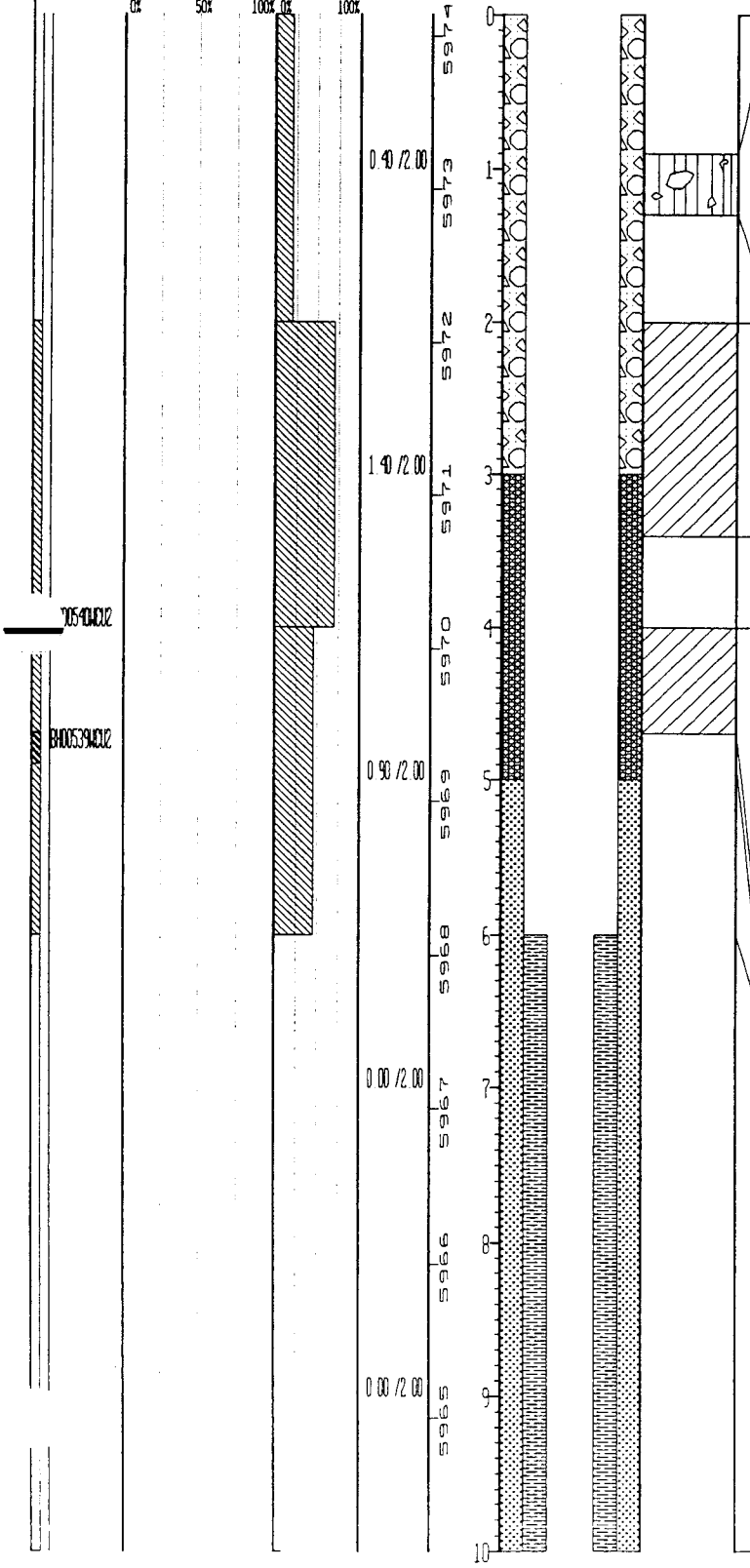
Total depth at 28.0 ft.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 20.0	GROUND ELEVATION (FT):	5974.14	PROJECT NUMBER:	002/RI	LOG OF BORING NUMBER:
NORTH:	749258.38	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	06891
EAST:	2085882.89	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/02/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 5.0 FT. - 3.0 FT. BACKFILL MATERIAL: BENOTINTE 20.0 FT. - 16.0 FT.

* = GRAIN SIZE DISTRIBUTION AND DESCRIPTION ESTIMATED

CHEMICAL SAMPL / GRADATIONAL SA | SAMPLE NUMBER | SAMPLE GRAIN SIZE (0% 50% 100%) | PERCENT RECOVERY (0% 100%) | RECOVERY/INTERVAL | DATUM (FT) | DEPTH (FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION

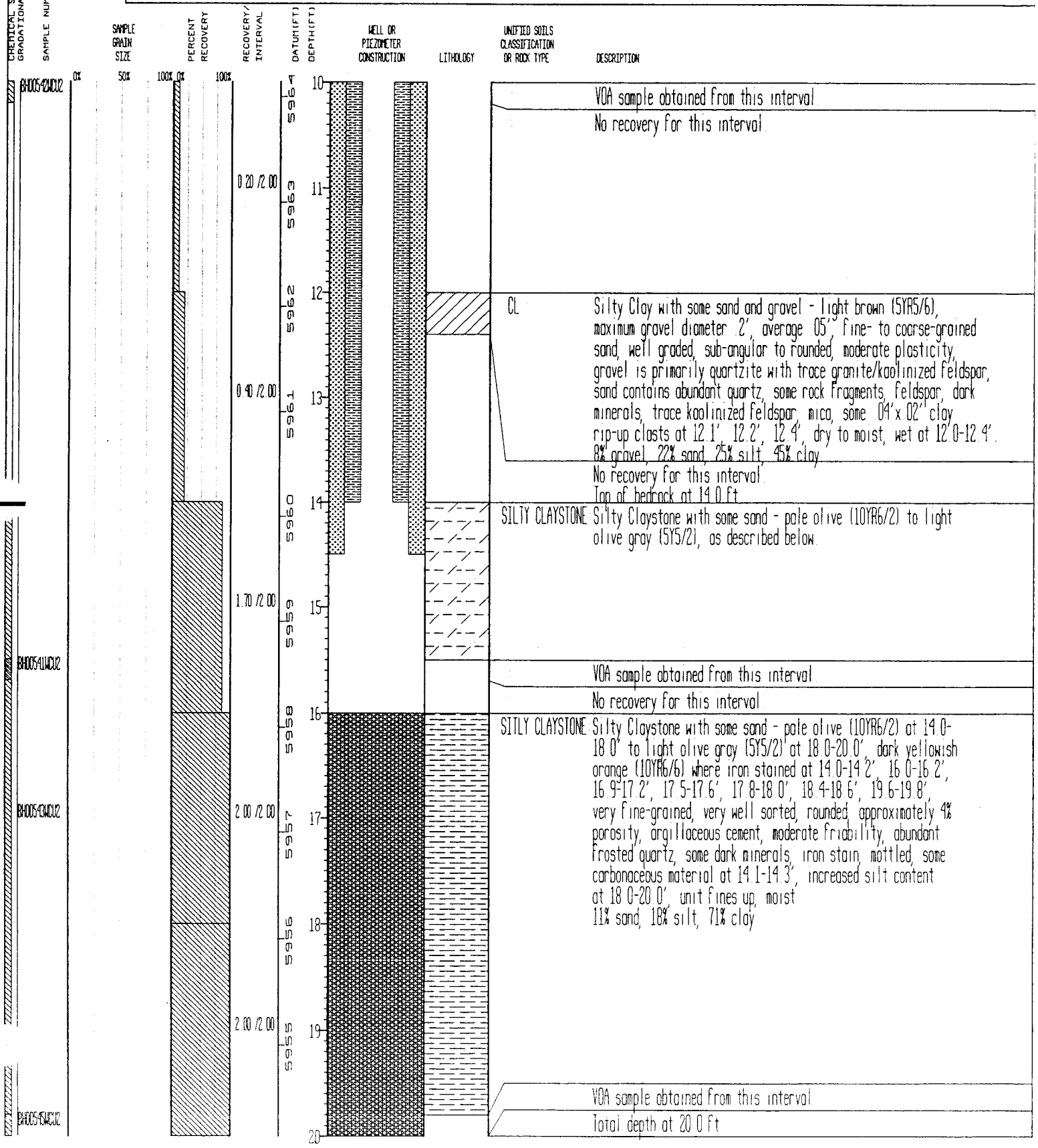


UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	Top soil, start of boring at 0.90 ft.
GM:	Sandy Gravel with some silt * - grayish brown (5YR3/2), maximum gravel diameter .2', average .1', fine- to coarse-grained sand, well graded, gravel is rounded, sand is sub-rounded, low plasticity, gravel is primarily quartzite with some caliche/calcrete at 0.9-1.3' and trace granite, sand contains abundant carbonaceous/organic material, quartz, some rock fragments, feldspar, trace mica, moist. *65% gravel, 20% sand, 10% silt, 5% clay
	No recovery for this interval
CL./gc:	Gravelly Clay with some sand and silt - very pale orange (10YR8/2) to pale yellowish brown (10YR6/2), as described below.
	No recovery for this interval.
CL./gc:	Gravelly Clay with some sand and silt - very pale orange (10YR8/2) to pale yellowish brown (10YR6/2), maximum gravel diameter > .25', average .1', fine- to coarse-grained sand, well graded, gravel is fractured to sub-rounded, sand is sub-angular to rounded, moderate plasticity, gravel is primarily quartzite with trace granite at 4.6', sand contains abundant quartz, some rock fragments, feldspar, kaolinized feldspar, trace dark minerals, mica, some caliche throughout, some yellowish gray (5Y7/2) silty clay at 4.2-4.7', appears to be re-worked bedrock material, dry. 30% gravel, 12% sand, 9% silt, 49% clay
	VOA sample obtained from this interval
	No recovery for this interval
	No recovery for this interval

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 20.0	GROUND ELEVATION (FT):	5974.14	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 749258.38	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	06891
EAST: 2085882.89	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/02/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 5.0 FT. - 3.0 FT. BACKFILL MATERIAL: BENOTINTE 20.0 FT. - 16.0 FT.

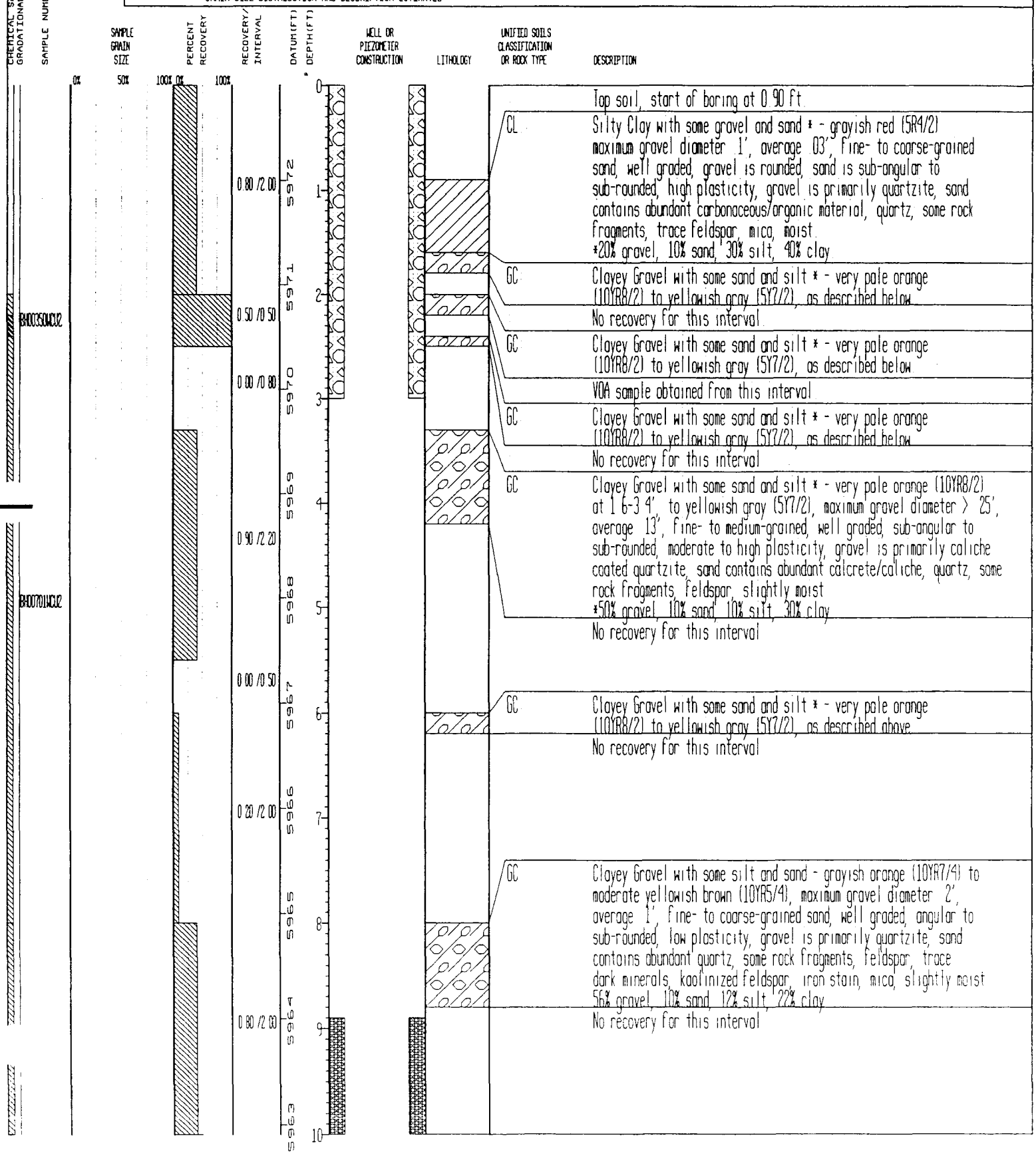
* = GRAIN SIZE DISTRIBUTION AND DESCRIPTION ESTIMATED



STATE PLANE COORDINATE		TOTAL DEPTH (FT) 35.0	GROUND ELEVATION (FT)	5972.91	PROJECT NUMBER	002/RI	LOG OF BORING NUMBER
NORTH	749167.76	AREA 903 PAD	CASING DIAMETER (IN)	2.0	GEOLOGIST	J.P. O'BRIEN	06991
EAST	2085989.57	LOCATOR NUMBER H12	BOREHOLE DIAMETER (IN)	10.0	DATE DRILLED	02/27/92	

REMARKS: HOLLOW-STEM AUGER BENTONITE SEAL 12.0 FT - 8.9 FT. BACKFILL MATERIAL: BENTONITE 35.0 FT - 31.0 FT

* = GRAIN SIZE DISTRIBUTION AND DESCRIPTION ESTIMATED



STATE PLANE COORDINATE		TOTAL DEPTH (FT): 35.0	GROUND ELEVATION (FT):	5972.91	PROJECT NUMBER:	OU2/RI
NORTH:	749167.76	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST:	2085989.57	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/27/92

LOG OF BORING NUMBER: 06991

REMARKS: HOLLOW-STEM AUGER BENTONITE SEAL 12.0 FT - 8.9 FT BACKFILL MATERIAL: BENTONITE 35.0 FT - 31.0 FT

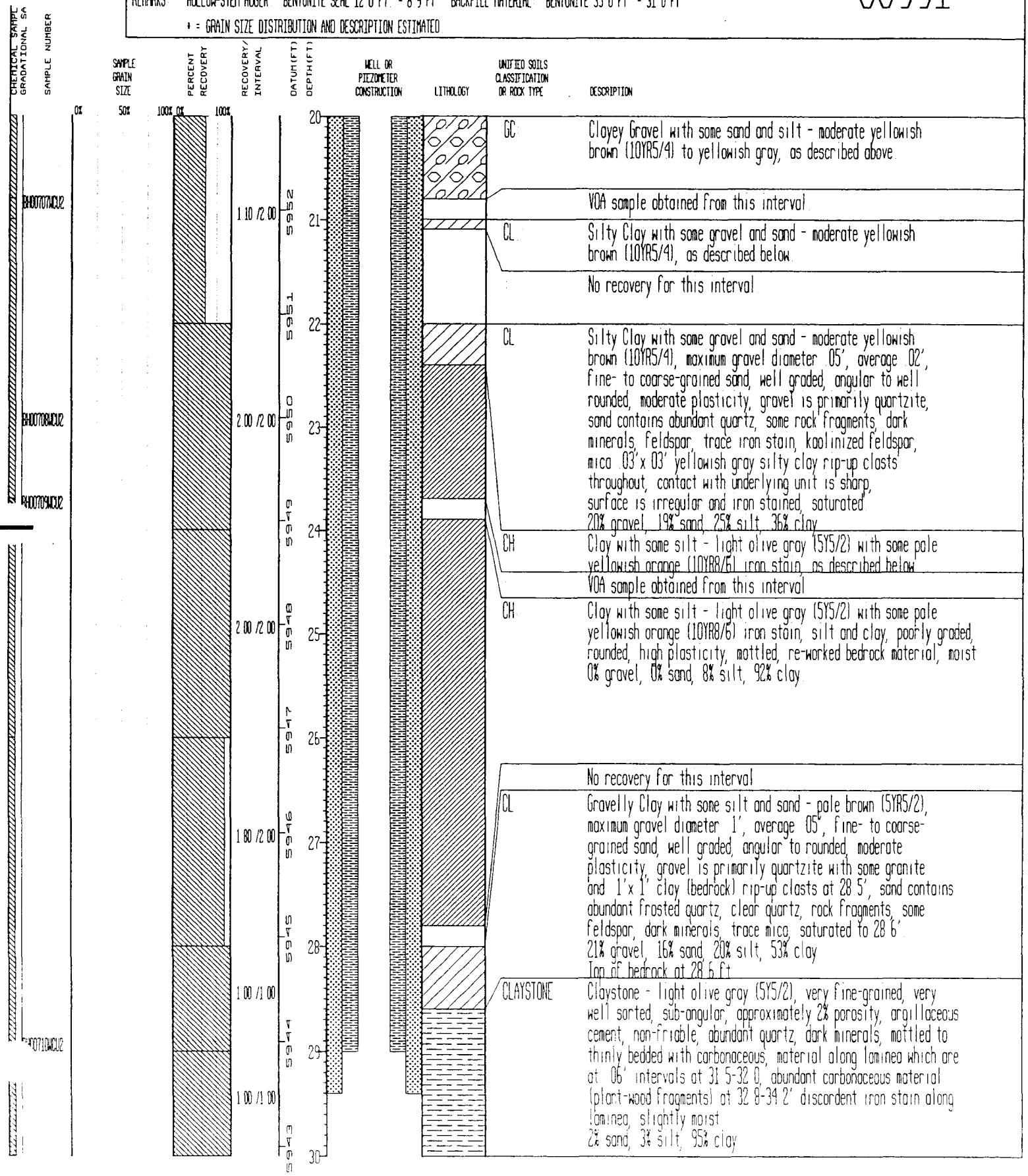
* = GRAIN SIZE DISTRIBUTION AND DESCRIPTION ESTIMATED

DEPTH (FT)	CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% – 50%)	PERCENT RECOVERY (0% – 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
							10			GC	Clayey Gravel with some sand and silt - moderate brown (5YR4/4), as described below.
		BH00351WC02									VOA sample obtained from this interval.
		BH00708WC02			1.00 /2.00	5962	11			GC	Clayey Gravel with some sand and silt - moderate brown (5YR4/4), as described above.
											No recovery for this interval
						5961	12			GC	Clayey Gravel with some sand and silt - moderate brown (5YR4/4), maximum gravel diameter > .25', average .06', fine- to coarse-grained sand, well graded, angular to sub-rounded, low plasticity, gravel is primarily quartzite, sand contains abundant quartz, some rock fragments, dark minerals, feldspar, trace kaolinized feldspar, mica, abundant kaolinized feldspar at 12.8-16.0', slightly moist at 10.0-14.0', moist at 14.0-16.0'
					0.90 /2.00	5960	13				50% gravel, 15% sand, 11% silt, 24% clay
											No recovery for this interval
						5959	14			GC	Clayey Gravel with some sand and silt - moderate brown (5YR4/4), as described above.
		BH00704WC02									VOA sample obtained from this interval
					0.90 /2.00	5958	15			GC	Clayey Gravel with some sand and silt - moderate brown (5YR4/4), as described above.
											No recovery for this interval
						5957	16			GC	Clayey Gravel with some sand and silt - moderate yellowish brown (10YR5/4) to yellowish gray (5Y8/1), as described below
					0.70 /1.00						
						5956					No recovery for this interval
		BH00706WC02					17			GC	Clayey Gravel with some sand and silt - moderate yellowish brown (10YR5/4) to yellowish gray (5Y8/1) at 17.0-18.0', 18.6-18.9', maximum gravel diameter > .25', average .13', fine- to coarse-grained sand, well graded, angular to sub-rounded, low to moderate plasticity, gravel is primarily quartzite with trace weathered granite and friable arkosic arenite, sand contains abundant quartz, some rock fragments, feldspar, trace dark minerals, kaolinized feldspar, mica, moist to 20.0', saturated at 20.0-21.0'
					1.00 /1.00	5955	18				
								02/27/92			
		BH00705WC02			1.20 /2.00	5954	19				42% gravel, 12% sand, 10% silt, 36% clay
											VOA sample obtained from this interval
						5953	20			GC	Clayey Gravel with some sand and silt - moderate yellowish brown (10YR5/4) to yellowish gray (5Y8/1), as described above.
											No recovery for this interval

STATE PLANE COORDINATE		TOTAL DEPTH (FT) 35.0	GROUND ELEVATION (FT)	5972.91	PROJECT NUMBER	OU2/RI	LOG OF BORING NUMBER
NORTH	749167.76	AREA 903 PAD	CASING DIAMETER (IN)	2.0	GEOLOGIST	J.P. O'BRIEN	06991
EAST	2085989.57	LOCATOR NUMBER H12	BOREHOLE DIAMETER (IN)	10.0	DATE DRILLED	02/27/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 12.0 FT. - 8.9 FT. BACKFILL MATERIAL: BENTONITE 35.0 FT. - 31.0 FT.

* = GRAIN SIZE DISTRIBUTION AND DESCRIPTION ESTIMATED

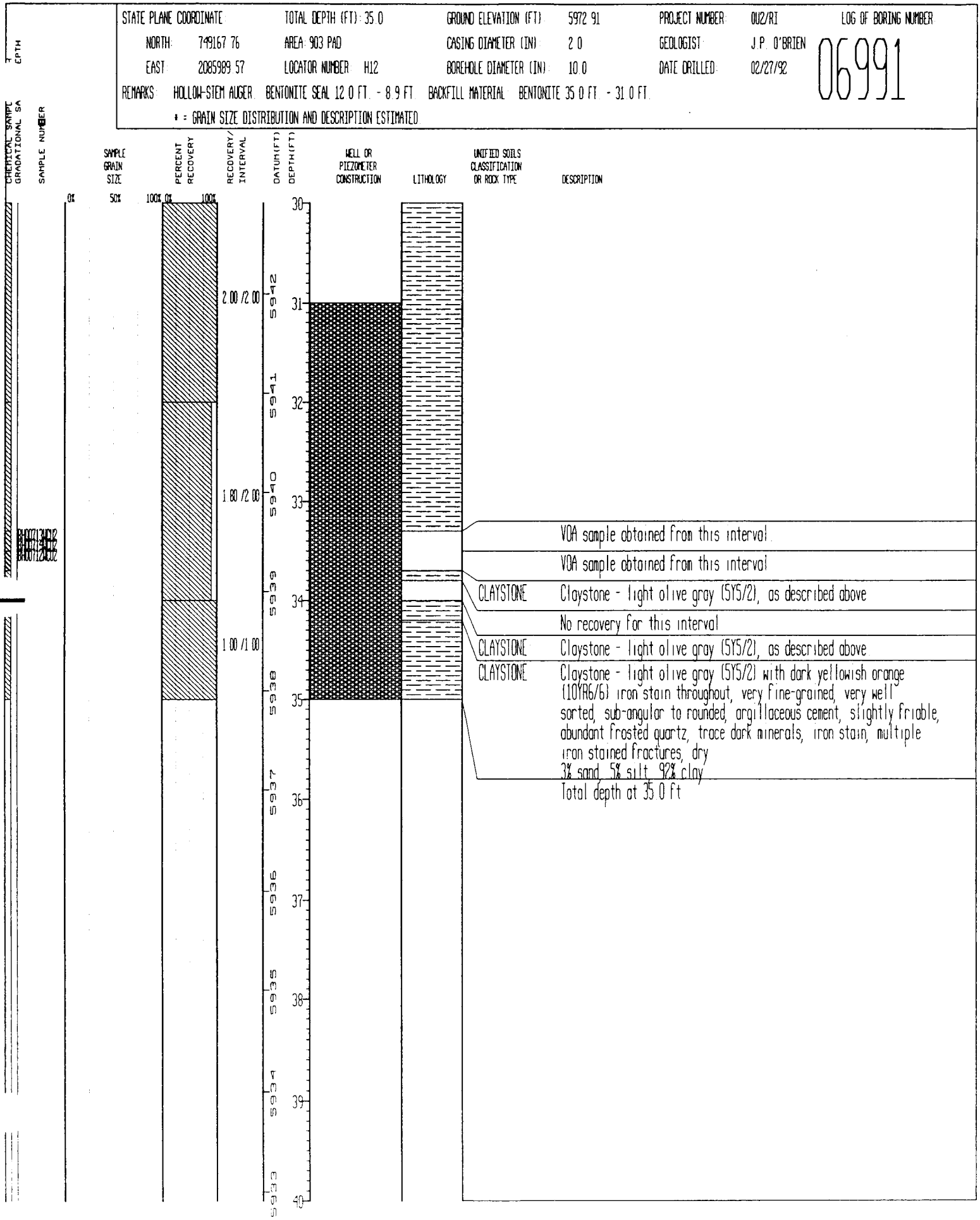


STATE PLANE COORDINATE	TOTAL DEPTH (FT): 35.0	GROUND ELEVATION (FT):	5972.91	PROJECT NUMBER:	OU2/RI
NORTH: 749167.76	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST: 2085989.57	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/27/92

LOG OF BORING NUMBER: 06991

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 12.0 FT. - 8.9 FT. BACKFILL MATERIAL: BENTONITE 35.0 FT. - 31.0 FT.

* = GRAIN SIZE DISTRIBUTION AND DESCRIPTION ESTIMATED



STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 14.4	GROUND ELEVATION (FT): 5973.39	PROJECT NUMBER: 002/RI	LOG OF BORING NUMBER:	
NORTH: 748942.45	AREA: 903 PAD	CASING DIAMETER (IN):	GEOLOGIST: J.P. O'BRIEN	07091	
EAST: 2085989.28	LOCATOR NUMBER: 612	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 02/13/92		
REMARKS: HOLLOW-STEM AUGER					
* = GRAIN SIZE DISTRIBUTION AND DESCRIPTION ESTIMATED					

CHEMICAL SAMPLE / GRADATIONAL SIZE	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					5973	0				Top soil, start of boring at 0.90 ft.
				0.90 /2.00	5972	1			GC	Clayey Gravel with some sand and silt * - grayish brown (5Y3/2), maximum gravel diameter .23', average .1', fine- to coarse-grained sand, well graded, gravel is angular to sub-rounded, sand is sub-angular to sub-rounded, low to moderate plasticity, gravel is caliche coated quartzite, sand contains abundant carbonaceous/organic material, quartz, some rock fragments, trace caliche/calcrete, mica, moist. *35% gravel, 20% sand, 10% silt, 35% clay.
										No recovery for this interval.
	BH00182W012			1.30 /2.00	5971	2			SC/gc	Sandy Clay with some gravel and silt - very pale orange (10YR8/2) to grayish orange (10YR7/4), maximum gravel diameter .2', average .06', fine- to coarse-grained sand, well graded, angular to sub-rounded, low- to moderate plasticity, gravel is primarily quartzite, sand contains abundant quartz, calcrete/caliche, some rock fragments, feldspar, dark minerals, trace mica, caliche at 2.0-5.0', moist to wet. 22% gravel, 30% sand, 11% silt, 37% clay.
					5970	3				VOA sample obtained from this interval.
										No recovery for this interval.
				0.60 /1.00	5969	4			SC/gc	Sandy Clay with some gravel and silt - very pale orange (10YR8/2) to grayish orange (10YR7/4), as described above.
										No recovery for this interval.
	BH00184W012			0.30 /1.00	5968	5			SC/gc	Sandy Clay with some gravel and silt - very pale orange (10YR8/2) to grayish orange (10YR7/4), as described above.
										No recovery for this interval.
					5967	6			GC/cl	Gravelly Clay with some sand and silt - light brown (5YR5/6) to light greenish gray (5GY8/1), as described below.
	BH00183W012			0.80 /1.50						VOA sample obtained from this interval.
					5966	7				No recovery for this interval.
				1.90 /2.50	5965	8			GC/cl	Gravelly Clay with some sand and silt - light brown (5YR5/6) to light greenish gray (5GY8/1), maximum gravel diameter > .25', average .05', fine- to coarse-grained sand, well graded, gravel is fractured or sub-rounded, sand is sub-angular to sub-rounded, moderate plasticity, gravel is primarily quartzite with a > .25' disaggregated/weathered granite clast at 9.7-9.9', sand contains abundant quartz, some rock fragments, feldspar, trace dark minerals, kaolinized feldspar, biotite, muscovite, matrix supported with greenish-gray silty clay - probably re-worked bedrock, moist to wet. 31% gravel, 17% sand, 14% silt, 38% clay.
					5964	9				
						10				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 14.4	GROUND ELEVATION (FT):	5973.39	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	748942.45	AREA: 903 PAD	CASING DIAMETER (IN):		GEOLOGIST:	J.P. O'BRIEN	07091
EAST:	2085989.28	LOCATOR NUMBER: 612	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	02/13/92	

REMARKS: HOLLOW-STEM AUGER

* = GRAIN SIZE DISTRIBUTION AND DESCRIPTION ESTIMATED.

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
						10				No recovery for this interval
				0.00/1.50	5963				GC	Clayey Gravel with some sand and silt - dark yellowish brown (10YR4/2) at 10.0-10.4', light brown (5YR5/6), maximum gravel diameter > .25', average .1", fine- to coarse-grained sand, well graded, angular to rounded, low plasticity, gravel is primarily quartzite with some weathered granite at 14.2', sand contains abundant quartz, some rock fragments, feldspar, dark minerals, trace kaolinized feldspar, mica, moist. 43% gravel, 16% sand, 15% silt, 26% clay.
	BH0486WC02				5962	11				
	BH0485WC02			0.50/0.50						
						12				VOA sample obtained from this interval.
				0.00/1.00	5961					No recovery for this interval.
						13			GC	Clayey Gravel with some sand and silt - light brown (5YR5/6), as described above
				0.30/1.00	5960					No recovery for this interval.
						14			GC	Clayey Gravel with some sand and silt - light brown (5YR5/6), as described above
					5959					Total depth at 14.4 ft
					5958	15				
					5957	16				
					5956	17				
					5955	18				
					5954	19				
						20				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 26.0	GROUND ELEVATION (FT):	5974.79	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	748849.74	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	07191
EAST:	2085908.39	LOCATOR NUMBER: 612	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/16/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 9.0 FT. - 7.0 FT. BACKFILL MATERIAL: BENTONITE 26.0 FT. - 23.1 FT.

* = GRAIN SIZE DISTRIBUTION AND DESCRIPTION ESTIMATED.

CHEMICAL SAMPL / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
						0				Top soil, start of boring at 0.90 ft.
				0.80 /2.00	5974	1			SC	Gravelly Sand with some clay and silt * - moderate brown (5YR3/4), maximum gravel diameter .12', average .05', fine- to coarse-grained, well graded, sub-rounded, moderate plasticity gravel is primarily quartzite, sand contains abundant carbonaceous/organic material, quartz, some rock fragments, thin bed of oxidized (iron stained) dark yellowish orange (10YR6/6) sand at 1.3', wet. *25% gravel, 45% sand, 10% silt, 20% clay.
					5973	2			GC	Clayey, Sandy Gravel with some silt - grayish orange (10YR7/4), as described below.
										No recovery for this interval.
	BH00977W012			0.90 /2.00	5972	3			GC	Clayey, Sandy Gravel with some silt * - grayish orange (10YR7/4), maximum gravel diameter > .25', fine- to coarse-grained sand, well graded, sub-rounded, low plasticity, gravel is primarily quartzite, sand contains abundant quartz, calcrete/caliche, some rock fragments, wet. *50% gravel, 20% sand, 10% silt, 20% clay.
										VOA sample obtained from this interval.
					5971	4				No recovery for this interval.
	BH00979W012			0.80 /2.00	5970	5			GC	Clayey Gravel with some sand and silt - light brown (5YR6/4), maximum gravel diameter .13', average .04', fine- to coarse-grained sand, well graded, angular to rounded, low to moderate plasticity, gravel is primarily quartzite with some pink granite at 4.0-4.3', sand contains abundant quartz, some rock fragments, feldspar, iron stain, trace dark minerals, kaolinized feldspar, mica, matrix of yellowish gray (5Y7/2) at 4.2', 6.9-7.1', moist. 36% gravel, 18% sand, 14% silt, 32% clay.
					5969	6				No recovery for this interval.
					5968	7			GC	Clayey Gravel with some sand and silt - light brown (5YR6/4), as described above.
	BH00981W012			1.30 /2.00						VOA sample obtained from this interval.
					5967	8				No recovery for this interval.
										No recovery for this interval.
				0.00 /1.50	5966	9			GM	Sandy Gravel with some silt and clay - dark yellowish brown (10YR4/2) to light brown (5YR5/6) at 14.0-16.7', maximum gravel diameter .21', average .03', fine- to coarse-grained sand, well graded, gravel is sub-rounded, sand is angular to rounded, low plasticity, gravel is primarily quartzite with some .15'x.1' pebbles of arkosic arenite at 12.1' and granite at 14.2', sand contains abundant clear quartz, frosted quartz, some rock fragments, feldspar, kaolinized feldspar, dark minerals, trace mica, iron
				0.50 /0.50	5965	10				

STATE PLANE COORDINATE		TOTAL DEPTH (FT) 26.0	GROUND ELEVATION (FT) 5974.79	PROJECT NUMBER 002/RI	LOG OF BORING NUMBER
NORTH	748849.74	AREA 903 PAD	CASING DIAMETER (IN) 2.0	GEOLOGIST J.P. O'BRIEN	07191
EAST	2085908.39	LOCATOR NUMBER 612	BOREHOLE DIAMETER (IN) 10.0	DATE DRILLED 03/16/92	

REMARKS: HOLLOW-STEM AUGER BENTONITE SEAL 9.0 FT - 7.0 FT BACKFILL MATERIAL: BENTONITE 26.0 FT - 23.1 FT

* = GRAIN SIZE DISTRIBUTION AND DESCRIPTION ESTIMATED

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50%	100% 0% 100%			10				stain, some oil product (?) at 9.5-10.5', contact with underlying unit is sharp and dips 20 degrees, moist to 12.7', wet at 14.0-15.4' 48% gravel, 20% sand, 19% silt, 13% clay
	BH00981WD02									VOA sample obtained from this interval
	BH00982WD02			0.70/2.00	5964	11				No recovery for this interval
					5963	12			GM	Sandy Gravel with some silt and clay - dark yellowish brown (10YR4/2) to light brown (5YR5/6), as described above
				0.70/2.00	5962	13				
					5961	14				
				1.40/2.00	5960	15				VOA sample obtained from this interval
	BH00983WD02									No recovery for this interval
					5959	16			GM	Sandy Gravel with some silt and clay - dark yellowish brown (10YR4/2) to light brown (5YR5/6), as described above
									CL/sc-gc	Sandy Clay with some silt and gravel - pale yellowish orange (10YR8/6), maximum gravel diameter > 25", average .02', fine-grained sand, well graded, sub-rounded to rounded, low plasticity, > 25' cobble at 16.8-17.1' is quartzite, some litharenite (consolidated clayey sandstone bedrock), sand contains abundant frosted quartz, clear quartz, trace dark minerals, dry 21% gravel, 25% sand, 22% silt, 32% clay
				1.10/1.50	5958	17				
	BH00985WD02						03/13/92			No recovery for this interval
				0.80/0.80	5957	18			GM	Silty Gravel with some sand and clay - moderate yellowish brown (10YR5/4) where more clayey at 17.5-18.4', to pale yellowish orange (10YR8/6) where more sandy and iron stained at 18.4-20.0', maximum gravel diameter > 25", average .05', fine- to coarse-grained sand, well graded, sub-rounded to rounded, low plasticity, gravel is primarily quartzite with some granite and trace litharenite (possible consolidated bedrock) 2'x 2' clast at 19.3', sand contains abundant clear quartz, frosted quartz, some rock fragments, dark minerals, feldspar, iron stain, trace mica, kaolinized feldspar, saturated 32% gravel, 20% sand, 28% silt, 20% clay
					5956					
				1.20/1.70		19				
	BH00986WD02									VOA sample obtained from this interval
					5955	20				No recovery for this interval Top of bedrock at 20.0 ft

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 26.0	GROUND ELEVATION (FT)	5974.79	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	748849.74	AREA 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	07191
EAST:	2085908.39	LOCATOR NUMBER: 612	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED	03/16/92	

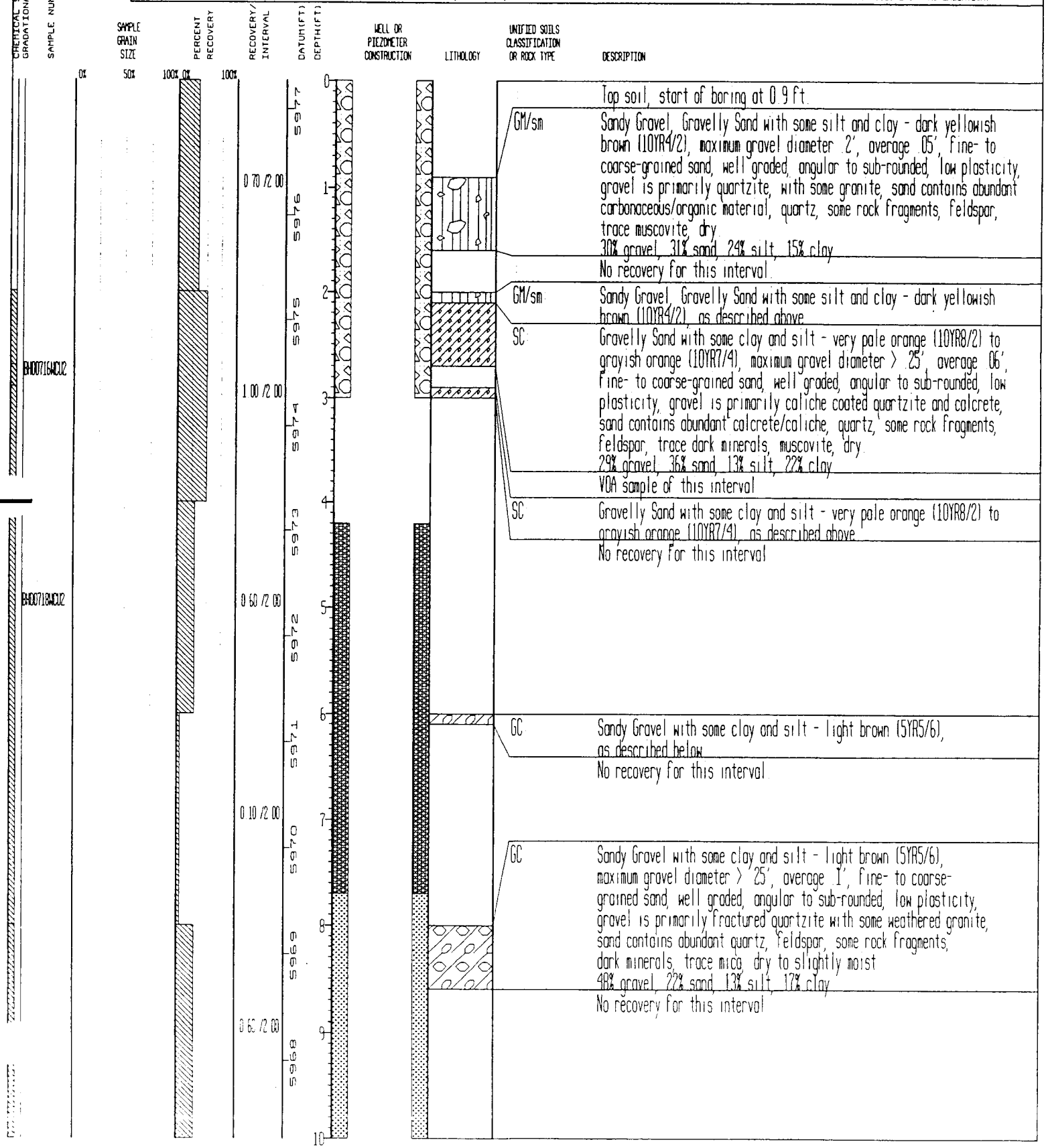
REMARKS: HOLLOW-STEM AUGER BENTONITE SEAL 9.0 FT - 7.0 FT BACKFILL MATERIAL: BENTONITE 26.0 FT - 23.1 FT

* = GRAIN SIZE DISTRIBUTION AND DESCRIPTION ESTIMATED

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% – 50% – 100%)	PERCENT RECOVERY (0% – 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
				2.00/2.00	5954	20–21			CLAYSTONE	Claystone with some silt - light gray (N7) to dark yellowish orange (10YR6/6) where iron stained at 20.3-20.4' (along laminea), 22.5-23.8', 24.0-26.0', no sand, very well sorted, approximately 2% porosity, argillaceous cement, non-friable, clay and silt sized argillaceous and peletic minerals, heavily iron stained and nodules at 24.0-24.7', mottled, very faintly laminated at 20.0-21.0', wet to moist 15% silt, 85% clay
					5953	22				
	BH009870C02			2.00/2.00	5952	23				
	009860C02				5951	24				VOA sample obtained from this interval
				2.00/2.00	5950	25			CLAYSTONE	Claystone with some silt - light gray (N7) to dark yellowish orange (10YR6/6) where iron stained, as described above
					5949	26				
					5948	27				Total depth at 26.0 ft
					5947	28				
					5946	29				
					5945	30				

STATE PLANE COORDINATE		TOTAL DEPTH (FT) 26.0	GROUND ELEVATION (FT) 5977.27	PROJECT NUMBER OU2RI	LOG OF BORING NUMBER
NORTH	748748.17	AREA 903 PAD	CASING DIAMETER (IN) 2.0	GEOLOGIST J.P. O'BRIEN	07291
EAST	2085765.57	LOCATOR NUMBER G12	BOREHOLE DIAMETER (IN) 10.0	DATE DRILLED 03/02/92	

REMARKS: APPROXIMATELY 30% OF CORE WAS RECOVERED. OF THIS 30%, APPROXIMATELY HALF WAS USED FOR COMPOSITE SAMPLING, LEAVING APPROXIMATELY 15% O F THE TOTAL CORE TO CHARACTERIZE THE HOLE GEOLOGICALLY, THEREFORE, RESULTS REPORTED ON THIS LOG ARE TENTATIVE AND SHOULD NOT BE USED FOR GEOLOGICAL CHARACTERIZATION.



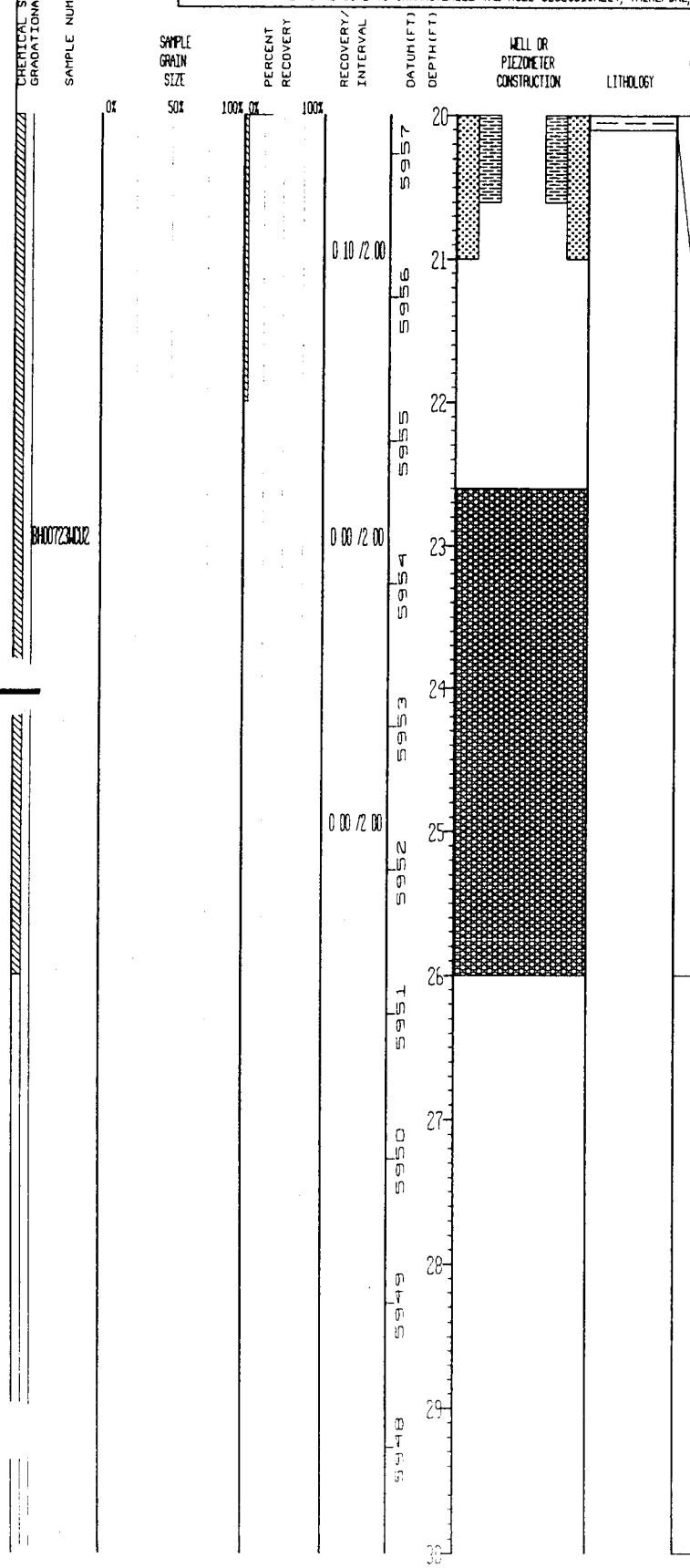
STATE PLANE COORDINATE		TOTAL DEPTH (FT): 26.0	GROUND ELEVATION (FT):	5977.27	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER
NORTH:	748748.17	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	07291
EAST:	2085765.57	LOCATOR NUMBER: 612	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/02/92	

REMARKS: APPROXIMATELY 30% OF CORE WAS RECOVERED. OF THIS 30%, APPROXIMATELY HALF WAS USED FOR COMPOSITE SAMPLING, LEAVING APPROXIMATELY 15% OF THE TOTAL CORE TO CHARACTERIZE THE HOLE GEOLOGICALLY, THEREFORE, RESULTS REPORTED ON THIS LOG ARE TENTATIVE AND SHOULD NOT BE USED FOR GEOLOGICAL CHARACTERIZATION

CHEMICAL SAMPL / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%							
	BH00717WC02				5967	10			GC	Sandy Gravel with some clay and silt - light brown (5YR5/6), as described above.
										VOA sample obtained from this interval.
	BH00719WC02			0.60 /2.00	5966	11			GC	Sandy Gravel with some clay and silt - light brown (5YR5/6), as described above.
										No recovery for this interval.
					5965	12			GC	Sandy Gravel with some clay and silt - light brown (5YR5/6), as described above.
				1.30 /2.00	5964	13			GM	Sandy Gravel with some silt and clay - moderate brown (5YR4/4), maximum gravel diameter .14', average .04', fine- to coarse-grained sand, well graded, angular to sub-rounded, low plasticity, gravel is primarily quartzite with some weathered granite, sand contains abundant quartz, feldspar, some rock fragments, trace dark minerals, kaolinized feldspar, muscovite, slightly moist. 39% gravel, 29% sand, 17% silt, 15% clay.
										No recovery for this interval.
					5963	14			GC	Clayey Gravel with some sand and silt - moderate brown (5YR4/4) to pale brown (5YR5/2), as described below.
	BH00720WC02									VOA sample obtained from this interval.
				0.90 /2.00	5962	15			GC	Clayey Gravel with some sand and silt - moderate brown (5YR4/4) to pale brown (5YR5/2), as described below.
										No recovery for this interval.
					5961	16			GC	Clayey Gravel with some sand and silt - moderate brown (5YR4/4) to pale brown (5YR5/2), as described below.
	BH00721WC02			1.10 /2.00	5960	17				
										No recovery for this interval.
	BH00722WC02				5959	18			GC	Clayey Gravel with some sand and silt - moderate brown (5YR4/4) to pale brown (5YR5/2), maximum gravel diameter > .25', average .08', fine- to coarse-grained sand, well graded, angular to sub-rounded, low plasticity, gravel is primarily quartzite with some granite at 14.2', 14.8', sand contains abundant quartz, some rock fragments, feldspar, dark minerals, trace kaolinized feldspar, mica, iron stain, slightly moist to moist. 42% gravel, 22% sand, 8% silt, 28% clay.
				0.70 /2.00	5958	19				
										VOA sample obtained from this interval.
									GC	Clayey Gravel with some sand and silt - moderate brown (5YR4/4) to pale brown (5YR5/2), as described above.
										No recovery for this interval.
						20				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 26.0	GROUND ELEVATION (FT):	5977.27	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER
NORTH:	748748.17	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	07291
EAST:	2085765.57	LOCATOR NUMBER: G12	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/02/92	

REMARKS: APPROXIMATELY 30% OF CORE WAS RECOVERED. OF THIS 30%, APPROXIMATELY HALF WAS USED FOR COMPOSITE SAMPLING, LEAVING APPROXIMATELY 15% O F THE TOTAL CORE TO CHARACTERIZE THE HOLE GEOLOGICALLY, THEREFORE, RESULTS REPORTED ON THIS LOG ARE TENTATIVE AND SHOULD NOT BE USED FOR GEOLOGICAL CHARACTERIZATION.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	Top of bedrock at 20.0 ft
CLAYSTONE	Claystone with some silt and sand - olive gray (5Y4/1) to light olive gray (5Y6/1) to dark yellowish orange (10YR6/6) where iron stained (24.0-24.4'), very fine-grained, very well sorted, sub-rounded, approximately 3% porosity, argillaceous cement, slightly friable, abundant quartz, trace feldspar, rock fragments, iron nodule at 24.7' and 25.9', caliche nodule at 25.2', slightly moist. 6% sand, 10% silt, 84% clay.
	No recovery for this interval. Note: some core cuttings were recovered from 24.0-26.0', although over drill stuff some inferences were made for this interval.
	Total depth at 26.0 ft

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 16.0	GROUND ELEVATION (FT):	5949.14	PROJECT NUMBER:	OU2RI
NORTH:	748547.46	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST:	2085827.20	LOCATOR NUMBER: 612	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/10/92

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 4.6 FT. - 2.6 FT. BACKFILL MATERIAL: BENTONITE 16.0 FT. - 13.4 FT.

LOG OF BORING NUMBER: 07391

CHEMICAL SAMP/ GRADATIONAL S.	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
										Top soil, start of boring at 0.90 ft.
				0.50 /2.00	5948	1			GC	Clayey Gravel with some sand and silt - dusky brown (5YR2/2), maximum gravel diameter .21', average .04', fine- to coarse-grained sand, well graded, sub-angular to sub-rounded, moderate plasticity, gravel is primarily quartzite and granite with some monzodiorite (possible source lithology for abundant kaolinized feldspar found in other cores), sand contains abundant carbonaceous/organic material, quartz, some rock fragments, no apparent bedding, moist. 50% gravel, 15% sand, 10% silt, 25% clay
					5947	2				No recovery for this interval.
	BH00474WC02 BH00473WC02			0.80 /2.00	5946	3			GC	Clayey Gravel with some sand and silt - moderate brown (5YR4/4), maximum gravel diameter .12', average .08', fine- to coarse-grained, well graded, angular to sub-rounded, moderate plasticity, gravel is primarily quartzite, sand contains abundant quartz, some rock fragments, no apparent bedding, moist. 30% gravel, 30% sand, 10% silt, 30% clay
										VOA sample obtained from this interval.
										VOA sample obtained from this interval.
					5945	4				No recovery for this interval.
									GC	Clayey Gravel with some sand and silt - moderate brown (5YR4/4), as described above.
	BH00475WC02			0.50 /2.00	5944	5			CL	Sandy Clay with some gravel and silt - yellowish gray (5Y7/2), maximum gravel diameter .14', average .03', fine- to coarse-grained sand, well graded, sub-rounded to well rounded, high plasticity, gravel is primarily quartzite with trace calcrete, sand contains abundant frosted quartz, quartz, some rock fragments, dark minerals, feldspar, trace caliche/calcrete, mica, iron/limonite stain, gravel is imbricated, interval appears to be re-worked bedrock, moist. 17% gravel, 20% sand, 11% silt, 52% clay
					5943	6				No recovery for this interval.
	BH00476WC02			1.00 /2.00	5942	7			GM	Sandy Gravel with some silt and clay - moderate yellowish brown (10YR5/4), maximum gravel diameter > .25', average .14', fine- to coarse-grained sand, well graded, gravel is rounded or oblate, sand is sub-angular to rounded, low plasticity, gravel is primarily quartzite, sand contains abundant quartz, rock fragments, some dark minerals, feldspar, trace iron stain, mica, sharp contact with underlying bedrock, gravel is loaded into bedrock, moist. 49% gravel, 19% sand, 17% silt, 15% clay
					5941	8				Top of bedrock at 8.1 ft.
										VOA sample obtained from this interval.
										No recovery for this interval.
				0.30 /2.00	5940	9			GM	Sandy Gravel with some silt and clay - moderate yellowish brown (10YR5/4), as described above.
									CLAYSTONE	Claystone with some silt and sand - light olive gray (5Y5/2) to dark yellowish orange (10YR6/6), as described below.
										No recovery for this interval.

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 16.0	GROUND ELEVATION (FT):	5949.14	PROJECT NUMBER:	OU2RI
NORTH: 748547.46	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST: 2085827.20	LOCATOR NUMBER: G12	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/10/92

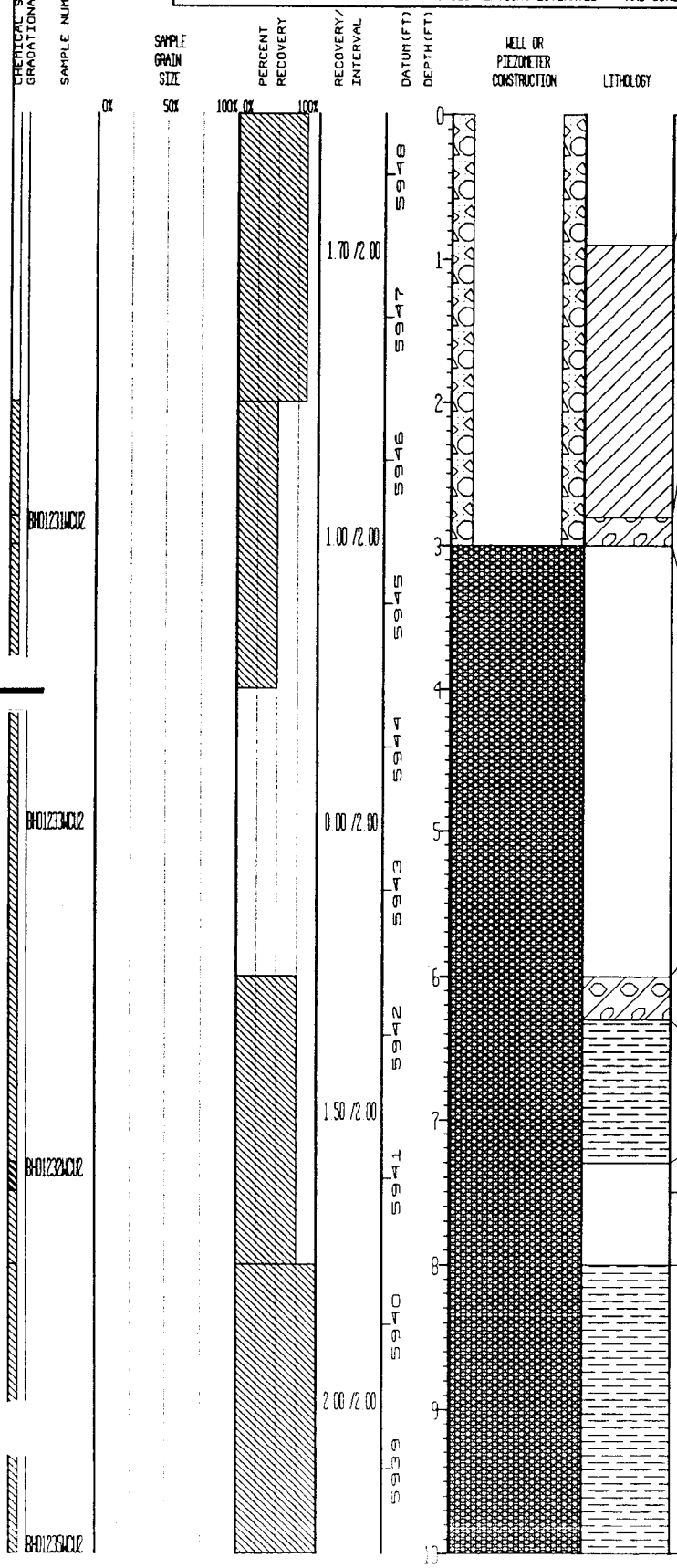
REMARKS: HOLLOW-STEM AUGER BENTONITE SEAL 4.6 FT. - 2.6 FT. BACKFILL MATERIAL: BENTONITE 16.0 FT. - 13.4 FT.

LOG OF BORING NUMBER: 07391

DEPTH	CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% – 50%)	PERCENT RECOVERY (100% – 0% – 100%)	RECOVERY/INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
						5939	10			CLAYSTONE	Claystone with some silt and sand - light olive gray (5Y5/2) to dark yellowish orange (10YR6/6) where iron stained (10.1-10.7', 14.3-14.6', 15.2'), very fine- to fine-grained, well sorted, rounded to well rounded, approximately 3% porosity, argillaceous cement, slightly friable, abundant frosted quartz, some rock fragments, dark minerals, mottled to crudely laminated, iron nodule at 14.4-14.5', carbonaceous material along laminea, 85 degree fracture plane with iron at 15.6-16.0', moist. 6% sand, 10% silt, 84% clay.
		BH00479GC02			1.20 /2.00	5938	11				VOA sample obtained from this interval.
						5937	12				No recovery for this interval.
										CLAYSTONE	Claystone with some silt and sand - light olive gray (5Y5/2) to dark yellowish orange (10YR6/6), as described above.
					0.70 /2.00	5936	13				No recovery for this interval.
						5935	14			CLAYSTONE	Claystone with some silt and sand - light olive gray (5Y5/2) to dark yellowish orange (10YR6/6), as described above.
		BH00480GC02			0.00 /2.00	5934	15				
		BH00479GC02				5933	16				VOA sample obtained from this interval.
											Total depth at 16.0 ft.
						5932	17				
						5931	18				
						5930	19				
							20				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 12.0	GROUND ELEVATION (FT): 5948.41	PROJECT NUMBER: 002/RI	LOG OF BORING NUMBER:	
NORTH: 748673.28	AREA: 903 PAD	CASING DIAMETER (IN):	GEOLOGIST: J.P. O'BRIEN	07491	
EAST: 2085986.62	LOCATOR NUMBER: 612	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 02/26/92		

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 12.0 FT. - 3.0 FT.
GRAIN SIZE DISTRIBUTIONS AND DESCRIPTIONS ESTIMATED. RAD SCREEN RESULTS OVER 50 pi/g (55 pi/g).



	Top soil, start of boring at 0.90 ft.
CL:	Sandy Clay with some gravel and silt - moderate brown (5YR4/4), maximum gravel diameter .1', average .05', fine- to coarse-grained sand, well graded, gravel is rounded, sand is sub-angular to sub-rounded, high plasticity, gravel is primarily quartzite, sand contains abundant carbonaceous/organic material, quartz, some rock fragments, moist. 15% gravel, 20% sand, 15% silt, 50% clay.
GC:	Clayey Gravel with some sand and silt - moderate brown (5YR4/4), maximum gravel diameter .2', average .03', fine- to coarse-grained sand, well graded, angular to sub-rounded, low plasticity, gravel is primarily quartzite with trace granite, sand contains abundant quartz, some rock fragments, feldspar, kaolinized feldspar, moist, contact with bedrock sharp with alluvial material loaded into bedrock. VOA sample obtained from this interval. 40% gravel, 20% sand, 15% silt, 25% clay.
	No recovery for this interval.
GC:	Clayey Gravel with some sand and silt - moderate brown (5YR4/4), as described above. Top of bedrock at 6.3 ft.
CLAYSTONE:	Claystone - olive gray (5Y4/1), as described below.
	VOA sample obtained from this interval.
	No recovery for this interval.
CLAYSTONE:	Claystone - olive gray (5Y4/1) to grayish orange (10YR7/4) at 8.0-8.5', grayish black (5YR2/1) at 10.0-12.0', very fine-grained, very well sorted, rounded, approximately 4% porosity, argillaceous cement, slightly friable, abundant frosted quartz, carbonaceous material, some dark minerals, mottled to faintly thinly laminated, iron nodules at 10.25-10.4', some carbonaceous material/coal at 10.8-11.9', moist. 5% sand, 7% silt, 88% clay.

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 12.0	GROUND ELEVATION (FT): 5948.41	PROJECT NUMBER: 002/RI	LOG OF BORING NUMBER:	
NORTH: 748673.28	AREA: 903 PAD	CASING DIAMETER (IN):	GEOLOGIST: J.P. O'BRIEN	07491	
EAST: 2085986.62	LOCATOR NUMBER: 612	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 02/26/92		

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 12.0 FT. - 3.0 FT.
GRAIN SIZE DISTRIBUTIONS AND DESCRIPTIONS ESTIMATED. RAD SCREEN RESULTS OVER 50 pi/g (55 pi/g).

CHEMICAL SAMPLE / GRADATIONAL SAMPLE / DEPTH	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	BH01235AC02	0% 50% 100%	0% 100%	1.90 /2.00	5938	10				
					5937	11				VOA sample obtained from this interval.
	BH01234AC02								CLAYSTONE	Claystone - grayish black (5YR2/1), as described above.
					5936	12				Total depth at 12.0 ft.
					5935	13				
					5934	14				
					5933	15				
					5932	16				
					5931	17				
					5930	18				
					5929	19				
						20				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 14.0	GROUND ELEVATION (FT):	5949.02	PROJECT NUMBER:	002/RI	LOG OF BORING NUMBER:
NORTH: 748785.57	AREA: 903 PAD	CASING DIAMETER (IN):		GEOLOGIST:	J.P. O'BRIEN	07591
EAST: 2086180.62	LOCATOR NUMBER: 613	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	02/26/92	

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 14.0 FT - 3.0 FT.

* = GRAIN SIZE DISTRIBUTION AND DESCRIPTION ESTIMATED

DEPTH	CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			0% 50% 100%	0% 100%							Top soil, start of boring at 0.90 ft.
					1.00 /2.10	5948	1			CL	Sandy Clay with some silt and gravel * - grayish brown (5YR3/2), maximum gravel diameter .06', average .04', fine- to coarse-grained sand, well graded, angular to sub-rounded, moderate plasticity, abundant carbonaceous/organic material, quartz, some rock fragments, calcrete/caliche, trace feldspar, mica, .02'x.02' caliche nodules at 1.6-1.9', moist. *15% gravel, 25% sand, 20% silt, 40% sand
											No recovery for this interval.
						5947	2			GM	Silty Gravel with some sand and clay - pale brown (5YR5/2) where more clayey at 2.1-2.8', to moderate yellowish brown (10RY5/4), maximum gravel diameter .2', average .06', fine- to coarse-grained sand, well graded, gravel is angular to rounded, low plasticity, gravel is primarily quartzite with some granite at 2.7', 3.2', sand contains abundant clear quartz, frosted quartz, some rock fragments, feldspar, dark minerals, kaolinized feldspar, trace mica, iron stain, some petroleum product at 2.1-2.4', some clasts of yellowish gray (5Y7/2) sandy clay throughout, moist. 49% gravel, 18% sand, 23% silt, 10% clay.
					1.70 /1.90	5946	3				
		BH01225WC02									
						5945	4				Top of bedrock at 6.0 ft.
											VOA sample obtained from this interval.
										GM	Silty Gravel with some sand and clay - pale brown (5YR5/2) to moderate yellowish brown (10YR5/4), as described above.
											No recovery for this interval.
		BH01227WC02			1.10 /2.00	5944	5			GM	Silty Gravel with some sand and clay - pale brown (5YR5/2) to moderate yellowish brown (10YR5/4), as described above.
											No recovery for this interval.
						5943	6			CLAYSTONE	Claystone - light gray (N7) to dark yellowish orange (10YR6/6) where iron stained at 6.3', 6.6', 6.7', 7.9', 8.3', 8.5', 8.8', 10.5', 10.8-11.0', 12.0-12.2', 12.3', 12.5', very fine-grained, very well sorted, sub-rounded, argillaceous cement, non-friable, abundant frosted quartz, iron stain, trace rock fragments, dark minerals, iron nodules at 10.8-11.0', 12.0-12.2', 12.3', 12.5', most iron stain along laminea, mottled, .03'x.02' clasts of carbonaceous material at 12.6', 13.0', moist. 2% sand, 5% silt, 93% clay
					2.00 /2.00	5942	7				
		BH01226WC02				5941	8				VOA sample obtained from this interval.
										CLAYSTONE	Claystone - light gray (N7) to dark yellowish orange (10YR6/6), as described above.
		BH01229WC02			1.30 /2.00	5940	9				
											No recovery for this interval.
							10				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 14.0	GROUND ELEVATION (FT): 5949.02	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:	
NORTH: 748785.57	AREA: 903 PAD	CASING DIAMETER (IN):	GEOLOGIST: J.P. O'BRIEN	07591	
EAST: 2086180.62	LOCATOR NUMBER: 613	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 02/26/92		

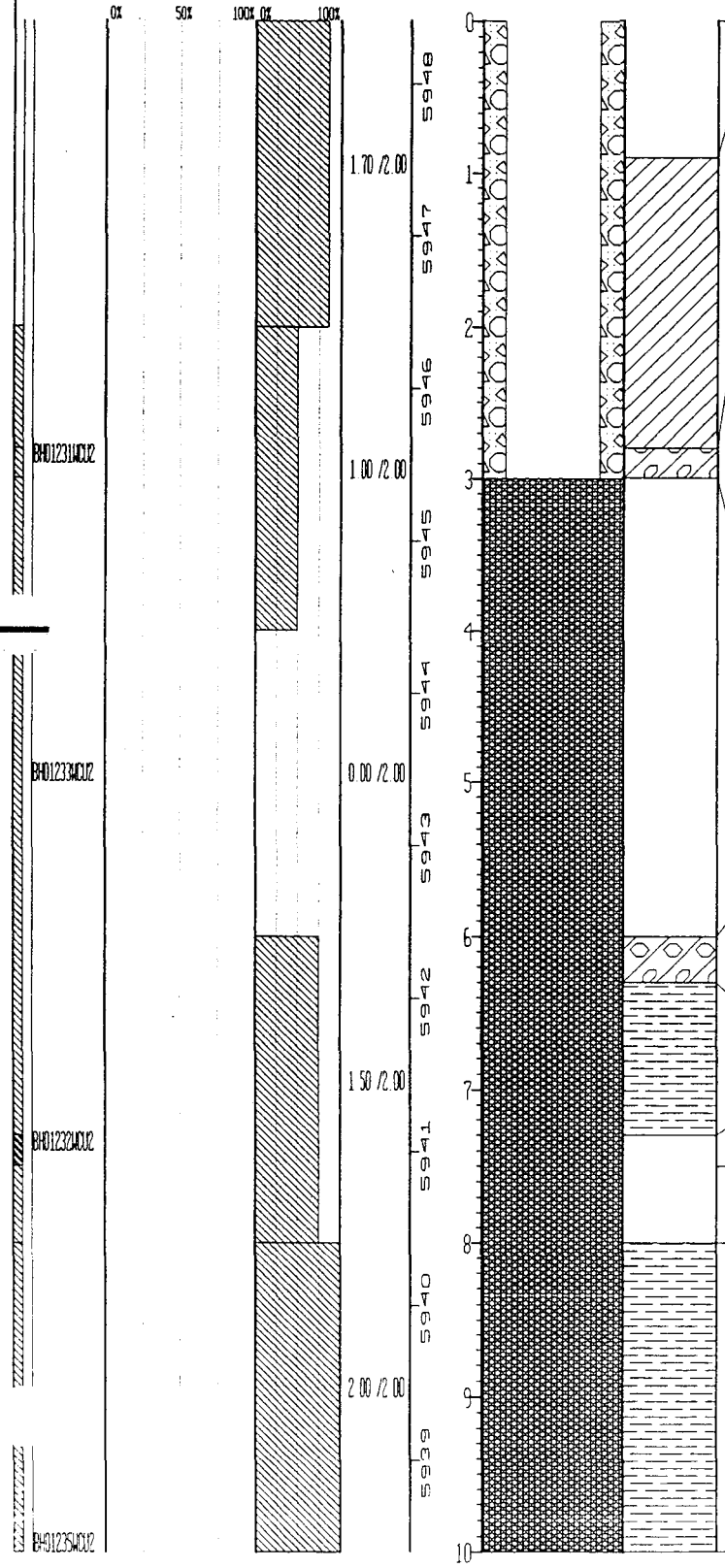
REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 14.0 FT. - 3.0 FT.

* = GRAIN SIZE DISTRIBUTION AND DESCRIPTION ESTIMATED

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					5939	10			CLAYSTONE	Claystone - light gray (N7) to dark yellowish orange (10YR6/6), as described above.
				2.00 /2.00	5938	11				VOA sample obtained from this interval.
										No recovery for this interval.
					5937	12			CLAYSTONE	Claystone - light gray (N7) to dark yellowish orange (10YR6/6), as described above.
				2.00 /2.00	5936	13				
					5935	14				Total depth at 14.0 ft.
					5934	15				
					5933	16				
					5932	17				
					5931	18				
					5930	19				
						20				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 12.0	GROUND ELEVATION (FT): 5948.41	PROJECT NUMBER: 002/RI	LOG OF BORING NUMBER:	
NORTH: 748673.28	AREA: 903 LIP AREA	CASING DIAMETER (IN):	GEOLOGIST: J.P. O'BRIEN	07491	
EAST: 2085986.62	LOCATOR NUMBER: 612	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 02/26/92		

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 12.0 FT. - 3.0 FT.
GRAIN SIZE DISTRIBUTIONS AND DESCRIPTIONS ESTIMATED. RAD SCREEN RESULTS OVER 50 pi/g (55 pi/g).

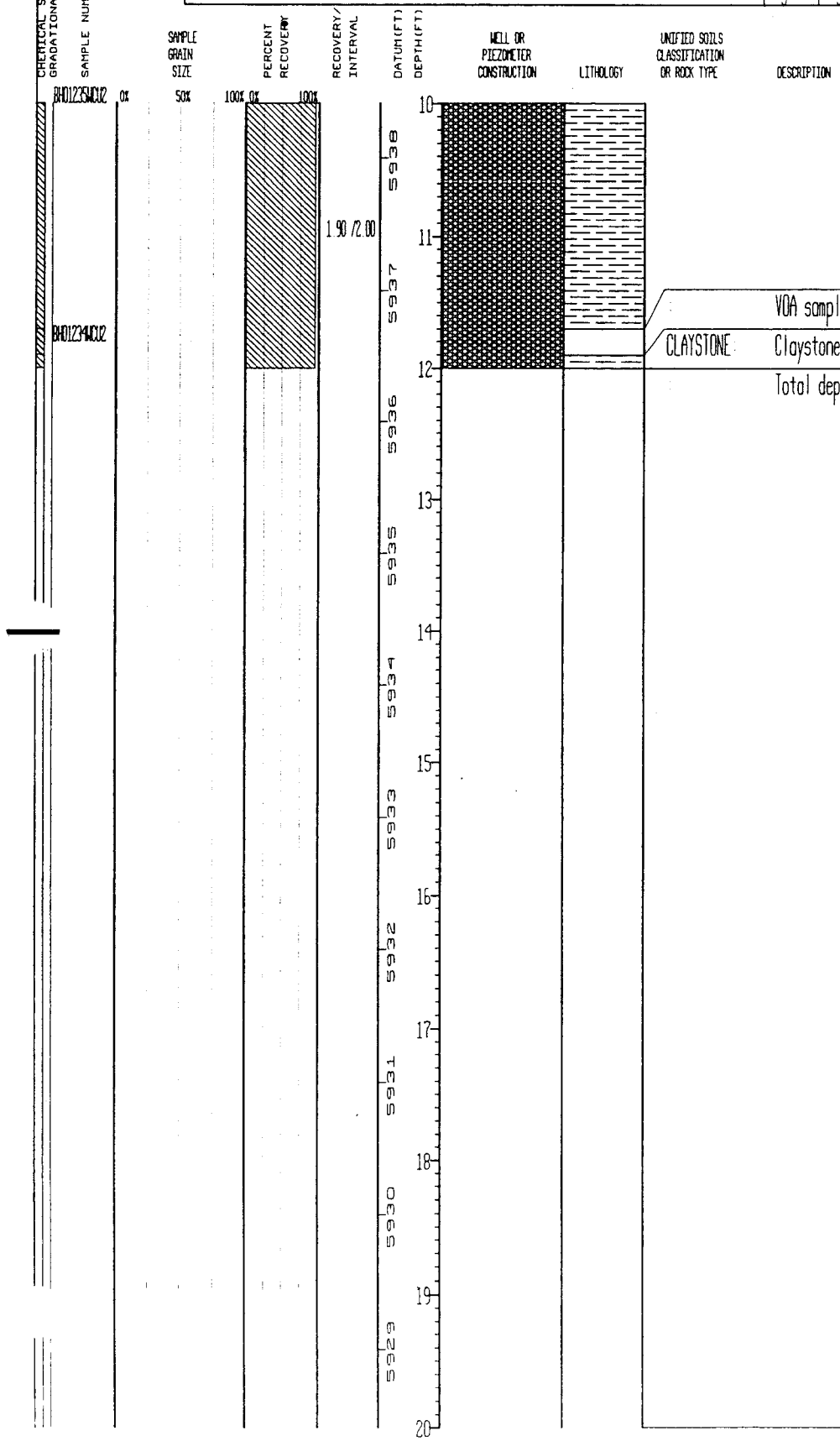


	Top soil, start of boring at 0.90 ft.
CL	Sandy Clay with some gravel and silt - moderate brown (5YR4/4), maximum gravel diameter 1', average .05', fine- to coarse-grained sand, well graded, gravel is rounded, sand is sub-angular to sub-rounded, high plasticity, gravel is primarily quartzite, sand contains abundant carbonaceous/organic material, quartz, some rock fragments, moist. 15% gravel, 20% sand, 15% silt, 50% clay
GC	Clayey Gravel with some sand and silt - moderate brown (5YR4/4), maximum gravel diameter 2', average .03', fine- to coarse-grained sand, well graded, angular to sub-rounded, low plasticity, gravel is primarily quartzite with trace granite, sand contains abundant quartz, some rock fragments, feldspar, kaolinized feldspar, moist, contact with bedrock sharp with alluvial material loaded into bedrock. VOA sample obtained from this interval. 40% gravel, 20% sand, 15% silt, 25% clay
	No recovery for this interval.
GC	Clayey Gravel with some sand and silt - moderate brown (5YR4/4), as described above. Top of bedrock at 6.3 ft
CLAYSTONE	Claystone - olive gray (5Y4/1), as described below.
	VOA sample obtained from this interval.
	No recovery for this interval
CLAYSTONE	Claystone - olive gray (5Y4/1) to grayish orange (10YR7/4) at 8.0'-8.5', grayish black (5YR2/1) at 10.0-12.0', very fine-grained, very well sorted, rounded, approximately 4% porosity, argillaceous cement, slightly friable, abundant frosted quartz, carbonaceous material, some dark minerals, mottled to faintly thinly laminated, iron nodules at 10.25-10.4', some carbonaceous material/coal at 10.8-11.9', moist. 5% sand, 7% silt, 88% clay

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 12.0	GROUND ELEVATION (FT):	5948.41	PROJECT NUMBER:	OU2/RI
NORTH: 748673.28	AREA: 903 LIP AREA	CASING DIAMETER (IN):		GEOLOGIST:	J.P. O'BRIEN
EAST: 2085986.62	LOCATOR NUMBER: 612	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	02/26/92

LOG OF BORING NUMBER: 07491

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 12.0 FT. - 3.0 FT.
GRAIN SIZE DISTRIBUTIONS AND DESCRIPTIONS ESTIMATED. RAD SCREEN RESULTS OVER 50 pi/g (55 pi/g).



STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 14.0	GROUND ELEVATION (FT):	5949.02	PROJECT NUMBER:	002/RI	LOG OF BORING NUMBER:
NORTH: 749785.57	AREA 903 LIP AREA	CASING DIAMETER (IN):		GEOLOGIST:	J.P. O'BRIEN	07591
EAST: 2086180.62	LOCATOR NUMBER: 613	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	02/26/92	

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 14.0 FT. - 3.0 FT.

* = GRAIN SIZE DISTRIBUTION AND DESCRIPTION ESTIMATED

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
										Top soil, start of boring at 0.90 ft.
				1.00 /2.10	5948	1			CL	Sandy Clay with some silt and gravel * - grayish brown (5YR3/2), maximum gravel diameter .06', average .04", fine- to coarse-grained sand, well graded, angular to sub-rounded, moderate plasticity, abundant carbonaceous/organic material, quartz, some rock fragments, calcrete/caliche, trace feldspar, mica, .02'x.02' caliche nodules at 1.6-1.9', moist. *15% gravel, 25% sand, 20% silt, 40% sand
										No recovery for this interval
					5947	2			GM	Silty Gravel with some sand and clay - pale brown (5YR5/2) where more clayey at 2.1-2.8', to moderate yellowish brown (10RYR5/4), maximum gravel diameter .2', average .06', fine- to coarse-grained sand, well graded, gravel is angular to rounded, low plasticity, gravel is primarily quartzite with some granite at 2.7', 3.2', sand contains abundant clear quartz, frosted quartz, some rock fragments, feldspar, dark minerals, kaolinized feldspar, trace mica, iron stain, some petroleum product at 2.1-2.4", some clasts of yellowish gray (5Y7/2) sandy clay throughout, moist. 49% gravel, 18% sand, 23% silt, 10% clay
				1.70 /1.90	5946	3				
	BH01225WC02									Top of bedrock at 6.0 ft.
					5945	4				
										VOA sample obtained from this interval
									GM	Silty Gravel with some sand and clay - pale brown (5YR5/2) to moderate yellowish brown (10YR5/4), as described above
										No recovery for this interval
	BH01227WC02			1.10 /2.00	5944	5			GM	Silty Gravel with some sand and clay - pale brown (5YR5/2) to moderate yellowish brown (10YR5/4), as described above
										No recovery for this interval
					5943	6			CLAYSTONE	Claystone - light gray (N7) to dark yellowish orange (10YR6/6) where iron stained at 6.3', 6.6', 6.7', 7.9', 8.3', 8.5', 8.8', 10.5', 10.8-11.0', 12.0-12.2', 12.3', 12.5', very fine-grained, very well sorted, sub-rounded, argillaceous cement, non-friable, abundant frosted quartz, iron stain, trace rock fragments, dark minerals, iron nodules at 10.8-11.0', 12.0-12.2', 12.3', 12.5', most iron stain along laminea, mottled, .03'x.02' clasts of carbonaceous material at 12.6', 13.0', moist. 2% sand, 5% silt, 93% clay
				2.00 /2.00	5942	7				
	BH01226WC02									VOA sample obtained from this interval
					5941	8			CLAYSTONE	Claystone - light gray (N7) to dark yellowish orange (10YR6/6), as described above
	BH01229WC02			1.30 /2.00	5940	9				
										No recovery for this interval
						10				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 14.0	GROUND ELEVATION (FT):	5949.02	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 748785.57	AREA: 903 LIP AREA	CASING DIAMETER (IN):		GEOLOGIST:	J.P. O'BRIEN	07591
EAST: 2086180.62	LOCATOR NUMBER: 613	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	02/26/92	

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 14.0 FT - 3.0 FT

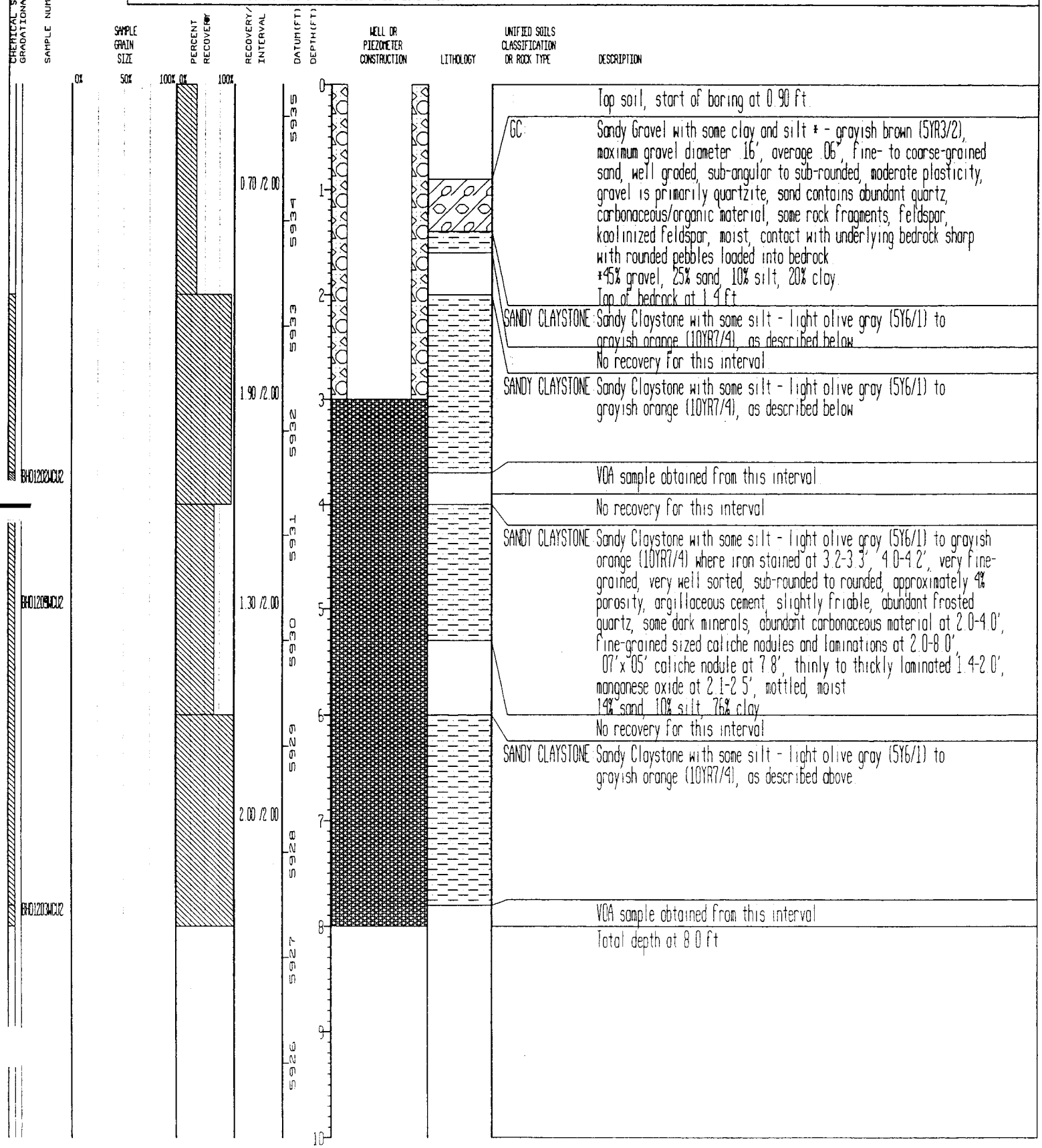
* = GRAIN SIZE DISTRIBUTION AND DESCRIPTION ESTIMATED

DEPTH	CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
						5939	10			CLAYSTONE	Claystone - light gray (N7) to dark yellowish orange (10YR6/6), as described above.
					2.00 /2.00	5938	11				VOA sample obtained from this interval.
											No recovery for this interval.
						5937	12			CLAYSTONE	Claystone - light gray (N7) to dark yellowish orange (10YR6/6), as described above.
					2.00 /2.00	5936	13				
						5935	14				Total depth at 14.0 ft
						5934	15				
						5933	16				
						5932	17				
						5931	18				
						5930	19				
							20				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 8.0	GROUND ELEVATION (FT):	5935.30	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	748643.43	AREA: 903 PAD	CASING DIAMETER (IN):		GEOLOGIST:	J.P. O'BRIEN	07691
EAST:	2086181.79	LOCATOR NUMBER: 613	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	02/21/92	

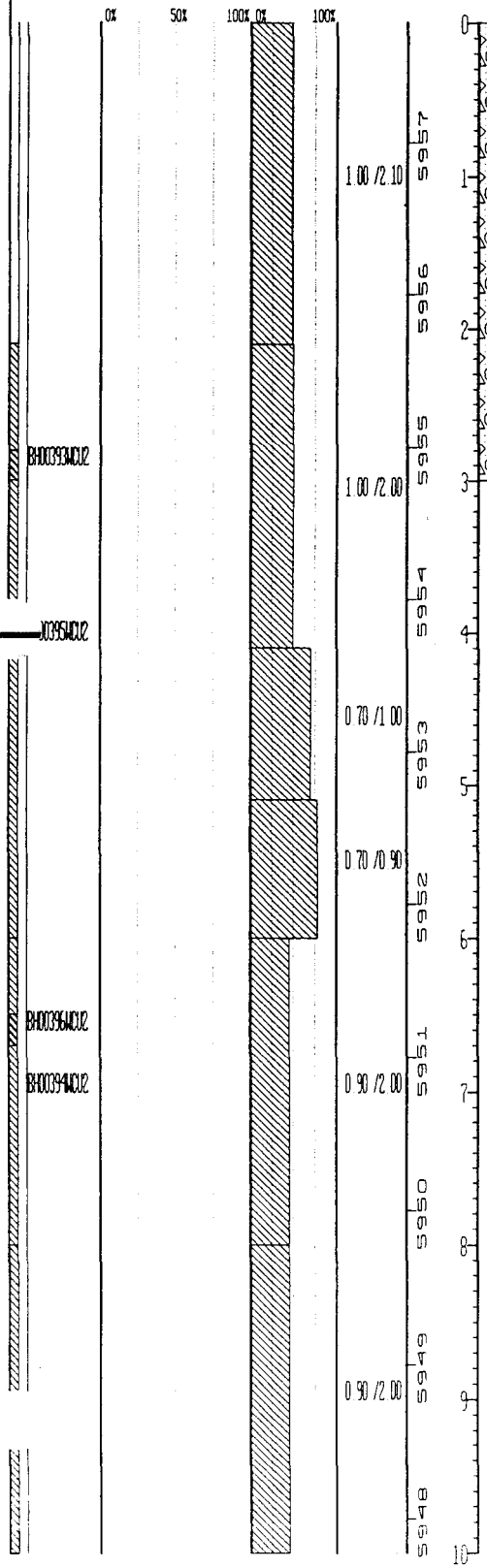
REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 8.0 FT. - 0.0 FT.

* = GRAIN SIZE DISTRIBUTION AND DESCRIPTION ESTIMATED.



STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 31.0	GROUND ELEVATION (FT): 5957.78	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:
NORTH:	749653.10	AREA: NE TRENCHES	CASING DIAMETER (IN): 2.0	GEOLOGIST: J.P. O'BRIEN	07891
EAST:	2087041.29	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 12/13/91	

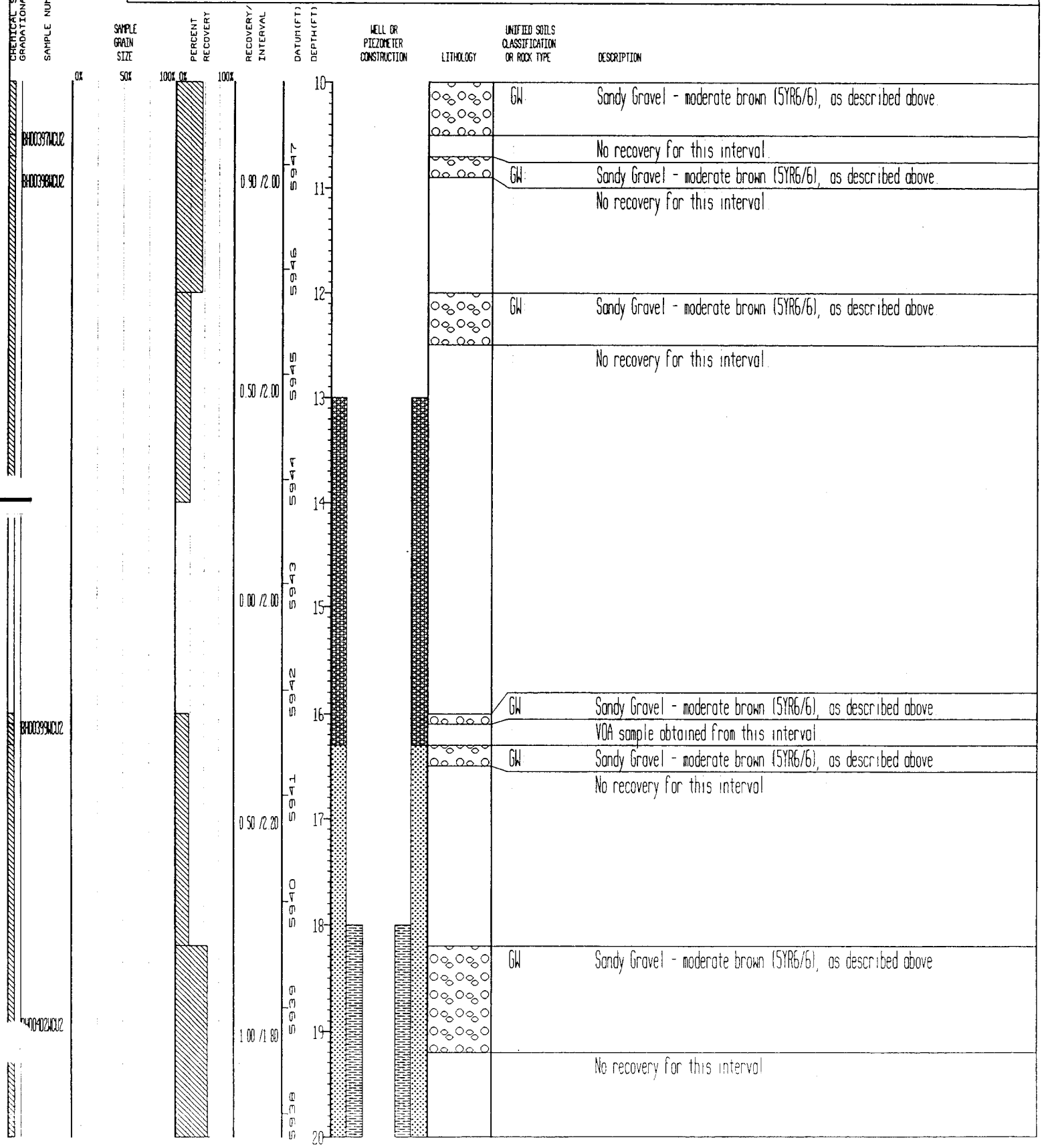
REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 16.3 FT - 13.0 FT. BACKFILL MATERIAL: BENTONITE 31.0 FT - 30.0 FT.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	Top soil, start of boring at 0.90 ft.
GC	Sandy Gravel with some clay - brownish black (5YR2/3), maximum size gravel 1 1/2", average 1" diameter, coarse- to fine-grained sand, well graded, sub-angular, low plasticity, gravel primarily quartzite with some granite, dominant lithology sand quartz with abundant rock fragments and some dark minerals with trace mica and K-spar, no apparent bedding, moist, some roots present. 69% gravel, 21% sand, 3% silt, 12% clay
GW	Sandy Gravel - pinkish gray (5YR8/1), as described below.
	VOA sample obtained from this interval
GW	Sandy Gravel - pinkish gray (5YR8/1), as described below.
	No recovery for this interval.
GW	Sandy Gravel - pinkish gray (5YR8/1), maximum size gravel diameter greater than 2" diameter, average 1" diameter, coarse- to fine-grained sand, well graded, sub-angular to sub-rounded gravel, sub-angular sand, low plasticity, gravel primarily quartzite, dominant lithology sand quartz with some rock fragments and trace dark minerals and mica, abundant caliche throughout and coating on gravel, no apparent bedding, dry. Note: medium grained sand and less was taken out for composite sample. 67% gravel, 30% sand, 2% silt, 1% clay
	No recovery for this interval
GW	Sandy Gravel - pinkish gray (5YR8/1), as described above
	No recovery for this interval.
GW	Sandy Gravel - moderate brown (5YR6/6), as described below.
	VOA sample obtained from this interval.
GW	Sandy Gravel - moderate brown (5YR6/6), as described below
	No recovery for this interval
GW	Sandy Gravel - moderate brown (5YR6/6), maximum size gravel greater than 2" diameter, average 1" diameter, coarse- to fine-grained sand, well graded, sub-angular to sub-rounded, low plasticity, gravel primarily quartzite with some granite, dominant lithology sand rock fragments with abundant quartz and some dark minerals with trace mica, K-spar and pyrite, some caliche at 6.0-8.9', no apparent bedding, moist. Note: sand and fines were removed for composite sample
	No recovery for this interval

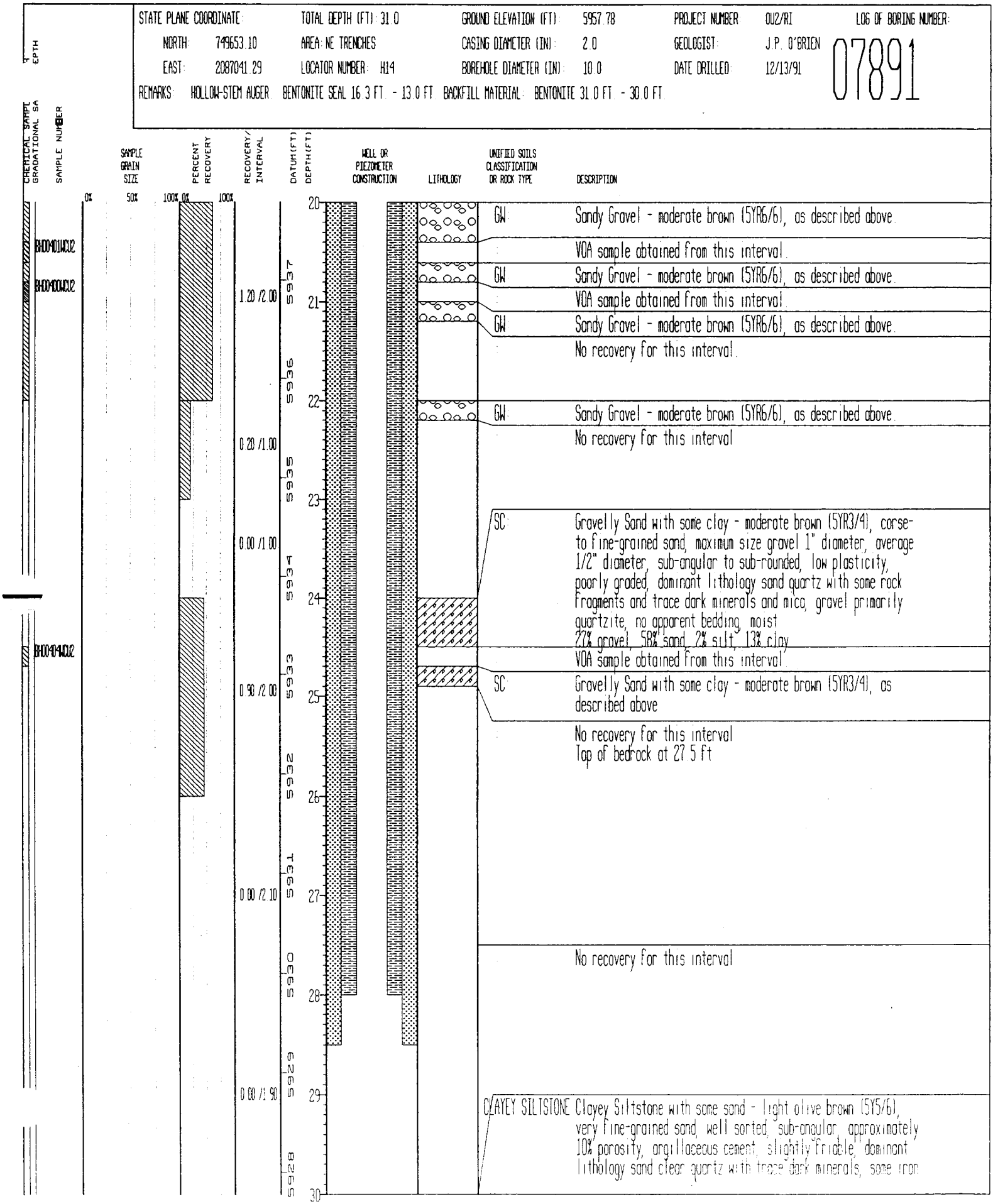
STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 31.0	GROUND ELEVATION (FT):	5957.78	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749653.10	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	07891
EAST:	2087041.29	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	12/13/91	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 16.3 FT. - 13.0 FT. BACKFILL MATERIAL: BENTONITE 31.0 FT. - 30.0 FT.



STATE PLANE COORDINATE		TOTAL DEPTH (FT): 31.0	GROUND ELEVATION (FT): 5957.78	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:
NORTH:	749653.10	AREA: NE TRENCHES	CASING DIAMETER (IN): 2.0	GEOLOGIST: J.P. O'BRIEN	07891
EAST:	2087041.29	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 12/13/91	

REMARKS: HOLLOW-STEM AUGER BENTONITE SEAL 16.3 FT. - 13.0 FT. BACKFILL MATERIAL: BENTONITE 31.0 FT. - 30.0 FT.



STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 31.0	GROUND ELEVATION (FT):	5957.78	PROJECT NUMBER:	OU2/RI
NORTH: 749653.10	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST: 2087041.29	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	12/13/91

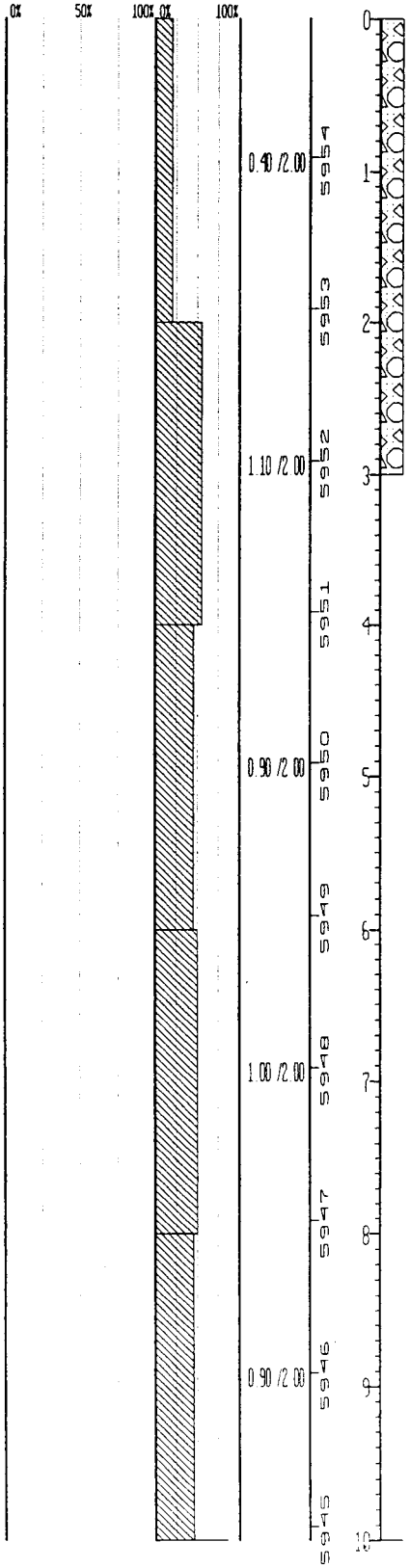
LOG OF BORING NUMBER: 07891

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 16.3 FT. - 13.0 FT. BACKFILL MATERIAL: BENTONITE 31.0 FT. - 30.0 FT.

CHEMICAL SAMPLE / GRADATIONAL SA	DEPTH	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			0% 50% 100%	0% 100%	0.00 /1.00	5927	30				staining on grains, some limonite throughout, no apparent bedding or fractures, moist to wet, weathered. 16% sand, 63% silt, 21% clay. No recovery for this interval
						5926	31				Total depth at 31.0 ft.
						5925	32				
						5924	33				
						5923	34				
						5922	35				
						5921	36				
						5920	37				
						5919	38				
						5918	39				
							40				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 36.0	GROUND ELEVATION (FT):	5954.91	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749541.12	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	07991
EAST:	2087442.74	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/03/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 13.4 FT. - 10.0 FT. BACKFILL MATERIAL: BENTONITE 36.5 FT. - 28.1 FT.



WELL OR PIEZOMETER CONSTRUCTION

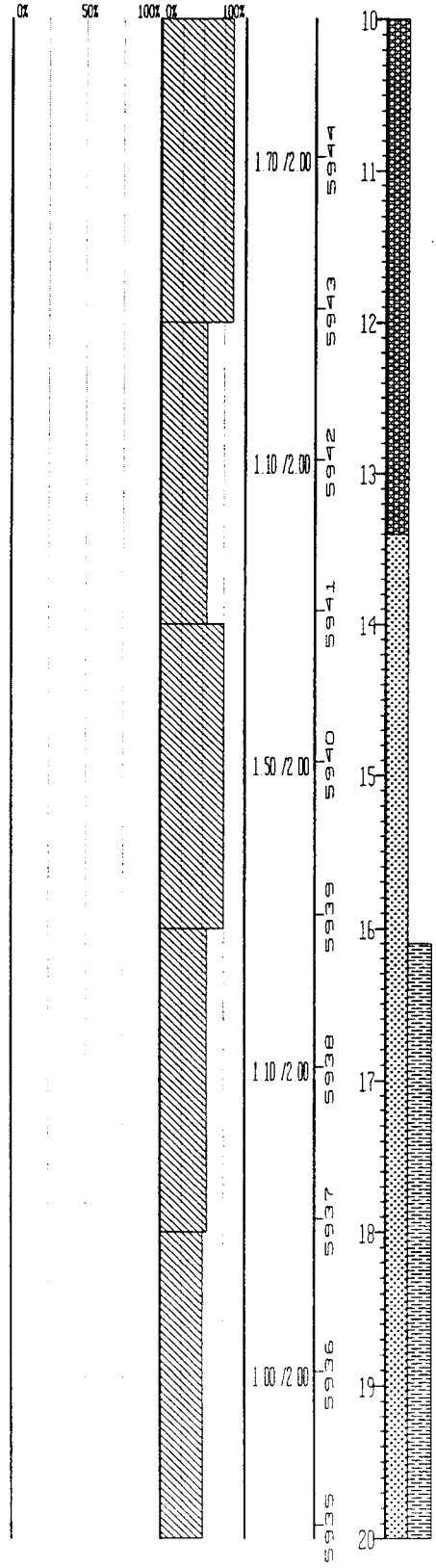
LITHOLOGY

UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	Top soil, start of boring at 0.90 ft.
GM	Silty Gravel with some sand and clay - moderate brown (5YR3/4), maximum gravel diameter .13', average .08', fine- to coarse-grained sand, well graded, angular to sub-rounded, low plasticity, gravel is primarily quartzite with some calcrete and granite, sand contains abundant carbonaceous/organic material, quartz, calcrete/caliche, some rock fragments, feldspar, trace mica, slightly moist. 29% gravel, 23% sand, 26% silt, 22% clay.
	No recovery for this interval.
GM	Silty Gravel with some sand and clay - moderate brown (5YR3/4), as described above.
SC/cl	Sandy Clay with some gravel and silt - very pale orange (10YR8/2) to grayish orange (10YR7/4), maximum gravel diameter .2', average .08', fine- to coarse-grained sand, well graded gravel is rounded, sand is angular to sub-angular, low to moderate plasticity, gravel is primarily quartzite with some calcrete and trace granite, sand contains abundant calcrete/ caliche, quartz, some rock fragments, feldspar, cobbles of asphalt at 2.6-2.9', decrease in caliche and gravel content increased sand content at 6.0-8.0', slightly moist. 21% gravel, 30% sand, 17% silt, 32% clay.
	No recovery for this interval.
SL/cl	Sandy Clay with some gravel and silt - very pale orange (10YR8/2) to grayish orange (10YR7/4), as described above.
	No recovery for this interval.
SC/cl	Sandy Clay with some gravel and silt - very pale orange (10YR8/2) to grayish orange (10YR7/4), as described above.
	No recovery for this interval.
SC/cl	Sandy Clay with some gravel and silt - very pale orange (10YR8/2) to grayish orange (10YR7/4), as described above.
GC	Clayey Gravel with some sand and silt - moderate brown (5YR4/4), maximum gravel diameter .2', average .06', fine- to coarse-grained sand, well graded, gravel is rounded, sand is angular to sub-angular, low plasticity, gravel is primarily quartzite with some weathered granite at 8.2' and 10.3', arkosic arenite at 10.2' and pale olive (10Y6/2) sandy clay clasts throughout, sand contains abundant quartz, some rock fragments, feldspar, trace kaolinized feldspar, dark minerals, mica, iron nodules, increased clay and sand content, decreased gravel at 14.0-14.7', slightly moist. 55% gravel, 15% sand, 13% silt, 17% clay.
	No recovery for this interval.

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 36.0	GROUND ELEVATION (FT):	5954.91	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 749541.12	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	07991
EAST: 2087442.74	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/03/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 13.4 FT. - 10.0 FT. BACKFILL MATERIAL: BENTONITE 36.5 FT. - 28.1 FT.

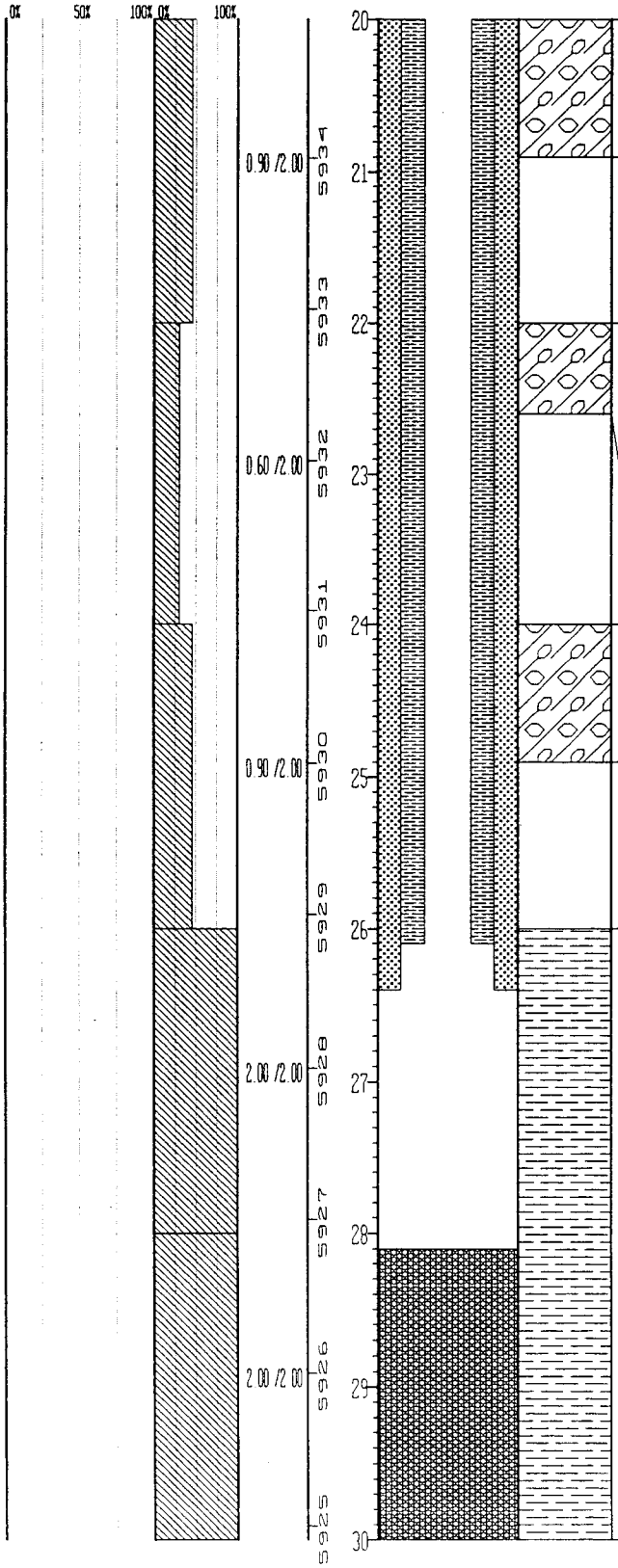
CHEMICAL SAMPLE
GRADATIONAL SAMPLE
SAMPLE NUMBER
DEPTH



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
GC	Clayey Gravel with some sand and silt - moderate brown (5YR4/4), as described above.
	No recovery for this interval.
GC	Clayey Gravel with some sand and silt - moderate brown (5YR4/4), as described above.
	No recovery for this interval
GC	Clayey Gravel with some sand and silt - moderate brown (5YR4/4), as described above.
	No recovery for this interval
GC	Clayey Gravel with some sand - light brown (5YR5/6), maximum gravel diameter > 25', average 17', fine- to coarse-grained sand, well graded, gravel is rounded, sand is angular to sub-rounded, low plasticity, gravel is primarily quartzite with trace granite at 16.9-17.1', sand contains abundant quartz, some rock fragments, feldspar, trace kaolinized feldspar, dark minerals, mica, increased sand content at 16.0-16.8', slightly moist to moist 70% gravel, 13% sand, 3% silt, 14% clay
	No recovery for this interval
GC	Clayey Gravel with some sand - light brown (5YR5/6), as described above
	No recovery for this interval

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 36.0	GROUND ELEVATION (FT):	5954.91	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 749541.12	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	07991
EAST: 2087442.74	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/03/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 13.4 FT. - 10.0 FT. BACKFILL MATERIAL: BENTONITE 36.5 FT. - 28.1 FT.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
GC:	Clayey Gravel with some sand - light brown (5YR5/6), as described above.
	No recovery for this interval.
GC:	Clayey Gravel with some sand - grayish orange (10YR7/4) (22'0-24.0') to yellowish gray (5Y7/2), maximum gravel diameter > .25', average .15', fine- to coarse-grained sand, well graded, angular to sub-rounded, low to medium plasticity, gravel is primarily quartzite, sand contains abundant quartz, some rock fragments, dark minerals, matrix appears to be re-worked bedrock, slightly moist. 75% gravel, 9% sand, 4% silt, 12% clay.
	No recovery for this interval.
GC:	Clayey Gravel with some sand - grayish orange (10YR7/4) (22'0-24.0') to yellowish gray (5Y7/2), as described above.
	No recovery for this interval. Top of bedrock at 26.0 ft.
CLAYSTONE:	Claystone - pale olive (10Y6/2), very fine-grained, very well sorted, sub-rounded, approximately 2% porosity, argillaceous cement, slightly friable, abundant quartz, mottled with some iron stain throughout, caliche at 28.1', .13'x.13' caliche nodule at 29.2', moist to slightly moist. 2% sand, 3% silt, 95% clay.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 36.0	GROUND ELEVATION (FT):	5954.91	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749541.12	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	07991
EAST:	2087492.74	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/03/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 13.4 FT. - 10.0 FT. BACKFILL MATERIAL: BENTONITE 36.5 FT. - 28.1 FT.

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50%)	PERCENT RECOVERY (100% 0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
				1.00 /2.00	5924	30–31				
						31				No recovery for this interval.
					5923	32				
				2.00 /2.00	5922	33			CLAYSTONE	Claystone - light olive gray (5Y6/1) to pale yellowish brown (10YR6/2) at 35.0-36.0', very fine-grained, very well sorted, sub-rounded to rounded, approximately 3% porosity, argillaceous cement, slightly friable, abundant quartz, trace dark minerals, thinly to thickly laminated, iron stain along laminea at 33.8-34.0', 35.0-36.0', mottled at 35.0-35.7', slightly moist 3% sand, 5% silt, 92% clay.
					5921	34				
				2.00 /2.00	5920	35				
					5919	36				
										Total depth at 36.0 ft
					5918	37				
					5917	38				
					5916	39				
					5915	40				

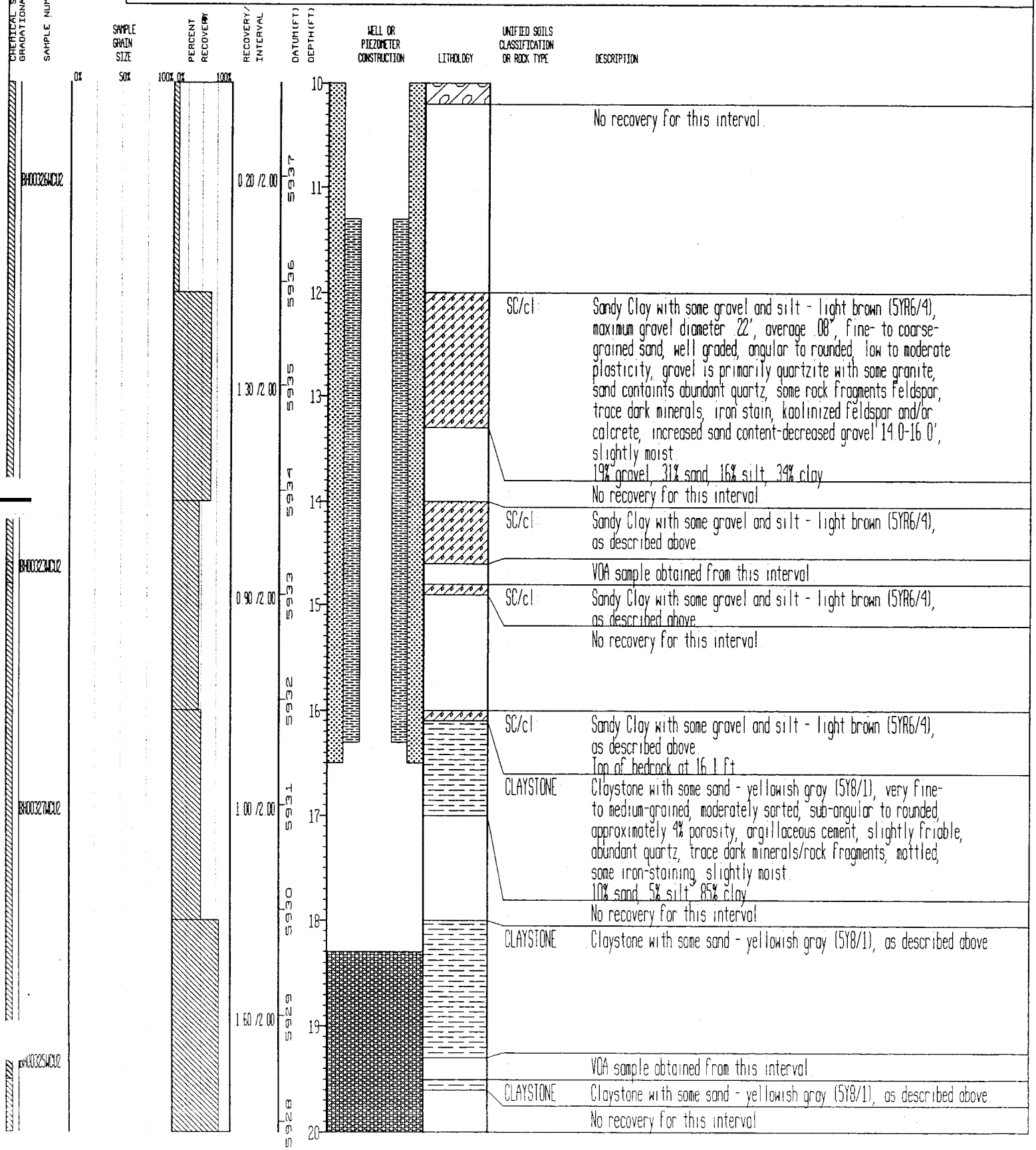
STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 22.0	GROUND ELEVATION (FT):	5947.90	PROJECT NUMBER	OU2/RI	LOG OF BORING NUMBER
NORTH:	749671.34	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	08091
EAST:	2087794.55	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	01/28/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 9.0 FT. - 6.2 FT. BACKFILL MATERIAL: BENTONITE 22.9 FT. - 18.3 FT.

CHEMICAL SAMPL / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
						0				Top soil, start of boring at 0.90 ft.
				0.40 /2.00	5947	1			GC	Clayey Gravel with some sand and silt - brownish gray (5YR4/1), maximum gravel diameter .21', average .06', fine- to coarse-grained sand, well graded, gravel is rounded, sand is angular to rounded, low to moderate plasticity, gravel is primarily granite and quartzite with trace calcrete, sand contains abundant carbonaceous/organic material, caliche/calcrete, quartz, some rock fragments, trace dark minerals, muscovite, slightly moist. 41% gravel, 20% sand, 16% silt, 23% clay.
					5946	2			SC	Clayey Sand with some gravel and silt - very pale orange (10YR8/2) to moderate orange pink (5YR8/4), as described below.
										No recovery for this interval.
	BH0022AC02				5945				SC	Clayey Sand with some gravel and silt - very pale orange (10YR8/2) to moderate orange pink (5YR8/4), as described below.
	BH0021AC02			1.20 /2.00		3				VOA sample obtained from this interval.
										VOA sample obtained from this interval.
					5944				SC	Clayey Sand with some gravel and silt - very pale orange (10YR8/2) to moderate orange pink (5YR8/4), as described below.
						4				No recovery for this interval.
									SC	Clayey sand with some gravel and silt - very pale orange (10YR8/2) to moderate orange pink (5YR8/4), maximum gravel diameter > .25', average .09', fine- to coarse-grained sand, well graded, gravel is fractured or rounded, sand is angular to sub-angular, low plasticity, gravel is caliche coated quartzite, sand contains abundant caliche/calcrete, some rock fragments, dark minerals, feldspar, kaolinized feldspar, trace mica, limonite stain, dry. 16% gravel, 37% sand, 15% silt, 32% clay.
	BH0024AC02			0.30 /2.00	5943	5				
					5942	6				No recovery for this interval.
				0.00 /2.00	5941	7				
					5940	8			SC	Clayey Sand with some gravel and silt - very pale orange (10YR8/2) to moderate orange pink (5YR8/4), as described above.
				1.00 /1.00	5939	9			GC	Sandy Gravel with some clay and silt - light brown (5YR5/6), maximum gravel diameter > .25', average .15', fine- to coarse-grained sand, well graded, angular to sub-angular, low plasticity, gravel is primarily iron coated quartzite with trace dark green weathered mafic rock at 8.6', granite at 9.1', arkosic arenite at 9.9', sand contains abundant quartz, some feldspar rock fragments, kaolinized feldspar, trace mica. 57% gravel, 21% sand, 5% silt, 17% clay.
				1.00 /1.00	5938	10				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 22.0	GROUND ELEVATION (FT):	5947.90	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749671.34	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	08091
EAST:	2087794.55	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	01/28/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 9.0 FT. - 6.2 FT. BACKFILL MATERIAL: BENTONITE 22.9 FT. - 18.3 FT.



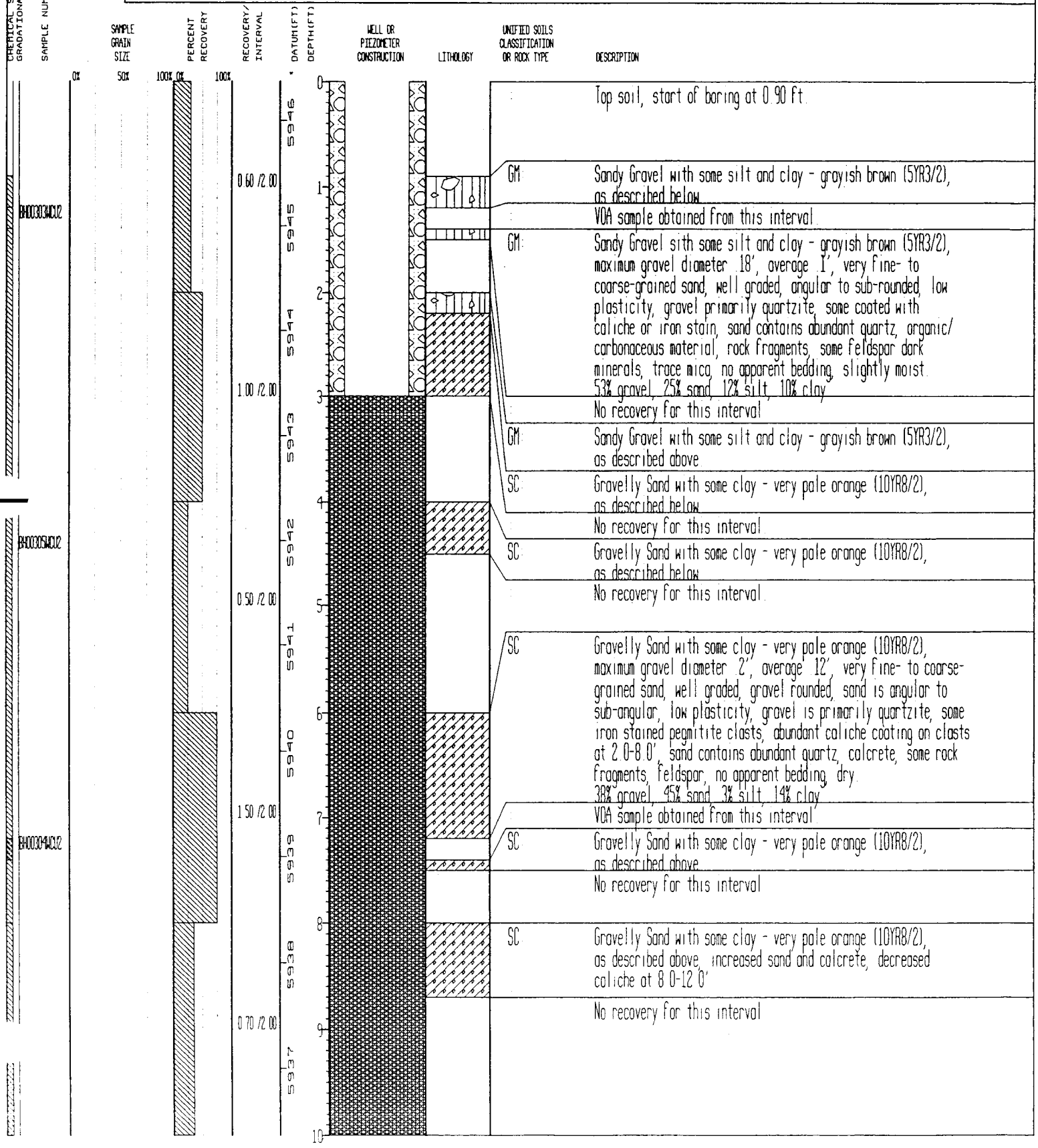
STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 22.0	GROUND ELEVATION (FT):	5947.90	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 749671.34	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	08091
EAST: 2087794.55	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	01/28/92	

REMARKS: HOLLOW-STEM AUGER BENTONITE SEAL 9.0 FT - 6.2 FT. BACKFILL MATERIAL: BENTONITE 22.9 FT. - 18.3 FT.

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%			20			CLAYSTONE	Claystone with some sand - yellowish gray (5Y8/1), as described above
	BH00328AC02			2.00 /2.00	5927	21			CLAYSTONE	Claystone with some sand - medium gray (N5), very fine-grained, very well sorted, sub-angular to rounded, approximately 3% porosity, argillaceous cement, slightly to non-friable, abundant quartz, trace dark minerals/rock fragments, iron stain, mottled, iron stain at 20.7', caliche nodules at 20.9-21.5', slightly moist. 8% sand, 5% silt, 87% clay.
					5926	22				Total depth at 22.0 ft
					5925	23				
					5924	24				
					5923	25				
					5922	26				
					5921	27				
					5920	28				
					5919	29				
					5918	30				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 44.0	GROUND ELEVATION (FT):	5946.37	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH: 749695.92	AREA: SE TRENCHES	CASING DIAMETER (IN):		GEOLOGIST:	J.P. O'BRIEN	08191
EAST: 2088039.23	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	01/23/92	

REMARKS: 15 FT. OF 6." HOLLOW-STEM AUGER LEFT IN HOLE FROM APPROXIMATELY 25.0-44.0'. COULD NOT BE RETRIEVED.



STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 44.0	GROUND ELEVATION (FT): 5946.37	PROJECT NUMBER: 002RI	LOG OF BORING NUMBER:
NORTH:	749695.92	AREA: SE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: J.P. O'BRIEN	08191
EAST:	2088039.23	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 01/23/92	

REMARKS: 15 FT. OF 6." HOLLOW-STEM AUGER LEFT IN HOLE FROM APPROXIMATELY 25.0-44.0'. COULD NOT BE RETRIEVED.

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	BH00306WC02				5936	10			SC	Gravelly Sand with some clay - very pale orange (10YR8/2), as described above.
										VOA sample obtained from this interval.
	BH00307WC02			0.60 /2.00	5935	11			SC	Gravelly Sand with some clay - very pale orange (10YR8/2), as described above.
										No recovery for this interval.
				1.60 /2.00	5934	12			SC	Clayey Sand with some silt - moderate yellowish brown (10YR5/4), maximum gravel diameter .16', average .13', very fine- to coarse-grained sand, well graded, angular to sub-rounded, medium plasticity, gravel is primarily quartzite, sand contains abundant quartz, some rock fragments, iron staining feldspar, trace dark minerals, carbonaceous material along laminea, increased gravel content at 14.0-15.1', slightly moist. 5% gravel, 51% sand, 14% silt, 30% clay
					5933	13				
										VOA sample obtained from this interval.
					5932	14				
	BH00308WC02			1.10 /2.00		15			SC	Clayey Sand with some silt - moderate yellowish brown (10YR5/4), as described above.
					5931					No recovery for this interval.
									SC	Gravelly Sand with some clay and silt - light brown (5YR6/4), maximum gravel diameter .13', average .07', very fine- to coarse-grained sand, well graded, sub-angular to sub-rounded, low plasticity, gravel is primarily quartzite with some weathered granite at 17.0', sand contains abundant quartz, some iron staining, rock fragments, dark minerals, feldspar, no apparent bedding, slightly moist. 35% gravel, 43% sand, 8% silt, 14% clay
					5930	16				
	BH00313WC02			1.30 /2.00	5929	17				
									SC	Clayey Sand with some gravel and silt - moderate reddish brown (10YR4/6), as described below.
					5928	18				
				2.00 /2.00	5927	19				
	BH00314WC02									VOA sample obtained from this interval.
						20				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 44.0	GROUND ELEVATION (FT): 5946.37	PROJECT NUMBER: OU2RI	LOG OF BORING NUMBER:	
NORTH: 749695.92	AREA: SE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: J.P. O'BRIEN	08191	
EAST: 2088039.23	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 01/23/92		

REMARKS: 15 FT. OF 6." HOLLOW-STEM AUGER LEFT IN HOLE FROM APPROXIMATELY 25.0-44.0'. COULD NOT BE RETRIEVED.

CHEMICAL SAMPL / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
				1.30 /2.00	5926 5925	20 21			SC	Clayey Sand with some gravel and silt - moderate reddish brown (10R4/6), maximum gravel diameter .18', average .1', very fine- to coarse-grained sand, well graded, sub-rounded to rounded, medium plasticity, gravel primarily quartzite, sand contains abundant quartz, some iron staining, rock fragments dark minerals, feldspar, trace limonite stain, semi-consolidated clayey sandstone clasts and increased gravel content at 18.0-18.8', decreased gravel content at 19.1-20.0', increased sand content at 20.0-21.0', slightly moist. 25% gravel, 37% sand, 8% silt, 30% clay.
					5924	22				No recovery for this interval
	BH003120C02			0.00 /2.00	5923	23				
					5922	24			SC	Sandy Clay with some gravel and silt - light brown (5YR5/6), as described below.
										No recovery for this interval
				0.20 /2.00	5921	25				
						26			SC	Sandy Clay with some gravel and silt - light brown (5YR5/6), as described below.
										VOA sample obtained from this interval.
				2.00 /2.00	5920 5919	27			SC	Sandy Clay with some gravel and silt - light brown (5YR5/6), maximum gravel diameter > .25', average .09', very fine- to coarse-grained sand, well graded, angular to sub-rounded, medium plasticity, gravel primarily quartzite, some iron stained, sand contains abundant quartz, some iron staining, rock fragments, trace dark minerals, kaolinize, carbonaceous material defines crude lamination, large (> 25') cobble at 28.1-28.4', moist. 15% gravel, 37% sand, 7% silt, 41% clay.
					5918	28				
	BH003140C02			1.90 /2.00	5917	29			SC/gc	Sandy Clay with abundant gravel - yellowish gray (5Y7/2), maximum gravel diameter .09', average .02', very fine- to coarse-grained sand, well graded, gravel is rounded, sub-angular to sub-rounded sand, high plasticity, gravel primarily quartzite, sand contains abundant quartz, some feldspar, rock fragments, trace dark minerals, mica, crudely laminated at 32.0-33.0', laminated at 33.0-34.0', contains clasts of
						30				

STATE PLANE COORDINATE		TOTAL DEPTH (FT): 44.0	GROUND ELEVATION (FT): 5916.37	PROJECT NUMBER: OU2RI	LOG OF BORING NUMBER:
NORTH:	749695.92	AREA: SE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: J.P. O'BRIEN	08191
EAST:	2088039.23	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 01/23/92	

REMARKS: 15 FT. OF 6." HOLLOW-STEM AUGER LEFT IN HOLE FROM APPROXIMATELY 25.0-44.0'. COULD NOT BE RETRIEVED.

DEPTH	CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			0% 50%	100% 0% 100%							silty clay, (possibly reworked claystone bedrock), moist. 26% gravel, 26% sand, 5% silt, 43% clay.
		BH00315WC02			2.00/2.00	5916 5915	30 31				VOA sample obtained from this interval.
					2.00/2.00	5914 5913	32 33			SC/gc	Sandy Clay with abundant gravel - yellowish gray (5Y7/2), as described above.
						5912	34			GC	Sandy Gravel with some clay and silt - grayish orange (10YR7/4), maximum gravel diameter .17', average .14', very fine- to coarse-grained sand, well graded, gravel is rounded, sand is sub-angular, low plasticity, gravel is primarily quartzite with some granite, sand contains abundant quartz, some dark minerals, rock fragments, iron staining, feldspar, trace mica, no apparent bedding, moist. 52% gravel, 27% sand, 9% silt, 12% clay.
		BH00317WC02 BH00316WC02			1.20/2.00	5911	35				VOA sample obtained from this interval.
											No recovery for this interval.
										GC	Sandy Gravel with some clay and silt - grayish orange (10YR7/4), as described above.
					2.00/2.00	5910 5909	36 37			GC	Clayey Gravel with abundant sand and some silt - light olive gray (5Y5/2), maximum gravel diameter .16', average .05', very fine- to coarse-grained sand, well graded, angular to sub-rounded, medium to low plasticity, gravel is primarily quartzite with some arkosic arenite at 37.5', sand contains abundant quartz, some rock fragments, dark minerals, mica, trace iron staining, crudely stratified, fractured cobble of arkosic arenite at 37.5', clasts of reworked bedrock. 33% gravel, 30% sand, 6% silt, 31% clay. Top of bedrock at 37.5 ft.
		BH00318WC02								SANDY CLAYSTONE	Sandy Claystone with some silt - light gray (N7) at 37.5-41.5', olive gray (5Y4/1) at 41.5-42.0', light olive gray (5Y6/1), as described below.
						5908	38				VOA sample obtained from this interval.
					2.00/2.00	5907	39			SANDY CLAYSTONE	Sandy Claystone with some silt - light gray (N7) at 37.5-41.5', olive gray (5Y4/1) at 41.5-42.0', light olive gray (5Y6/1), very fine- grained sand, very well sorted, sub-angular, approximately 5% porosity, argillaceous cement, slightly friable, sand contains abundant quartz, bedrock alluvium contact is sharp, appears scoured, assymetric ripple laminea with amplitudes of .02', wavelength .1', some carbonaceous material at 37.5-41.5', increased
							40				

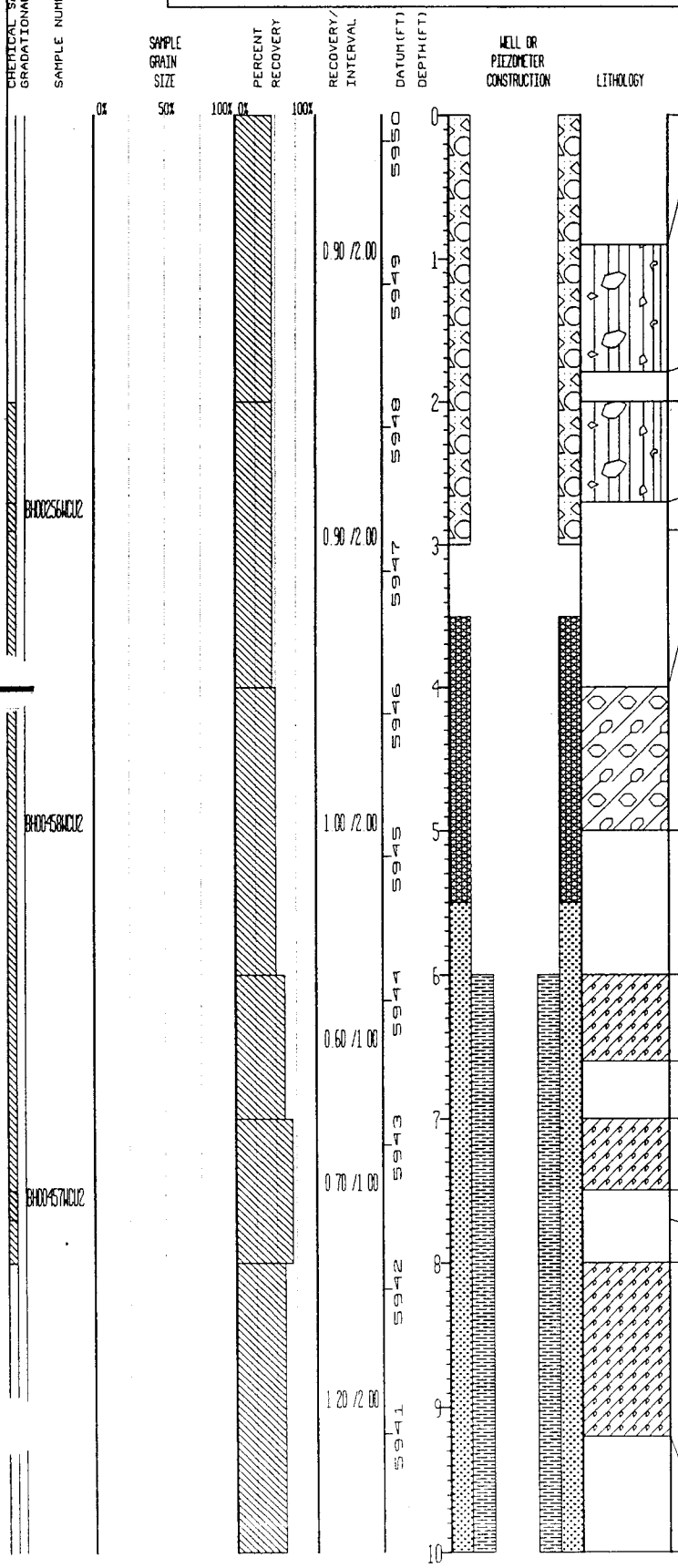
STATE PLANE COORDINATE		TOTAL DEPTH (FT) 44.0	GROUND ELEVATION (FT) 5946.37	PROJECT NUMBER 002RI	LOG OF BORING NUMBER
NORTH:	749695.92	AREA: SE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: J.P. O'BRIEN	08191
EAST:	2088039.23	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 01/23/92	

REMARKS: 15 FT. OF 6." HOLLOW-STEM AUGER LEFT IN HOLE FROM APPROXIMATELY 25.0-44.0'. COULD NOT BE RETRIEVED.

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	BH00319W012			2.00 /2.00	5906	40				clay content, thinly-thickly laminated convolute laminea, sharp contact with underlying clay at 41.5-42.0', crudely laminated to mottled, iron stain along laminea, iron nodules at 42.0-44.0' moist 18% sand, 8% silt, 74% clay
					5905	41				
					5904	42				
				2.00 /2.00	5903	43				
					5902	44				Total depth at 44.0 ft
					5901	45				
					5900	46				
					5899	47				
					5898	48				
					5897	49				
						50				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 20.0	GROUND ELEVATION (FT): 5950.18	PROJECT NUMBER: 0U2RI	LOG OF BORING NUMBER:
NORTH: 749586.38	AREA: SE TRENCHES	CASING DIAMETER (IN): 2.0	GEOLOGIST: J.P. O'BRIEN	08291
EAST: 2087832.49	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 01/22/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 5.5 FT. - 3.5 FT. BACKFILL MATERIAL: BENTONITE 20.0 FT. - 16.0 FT.

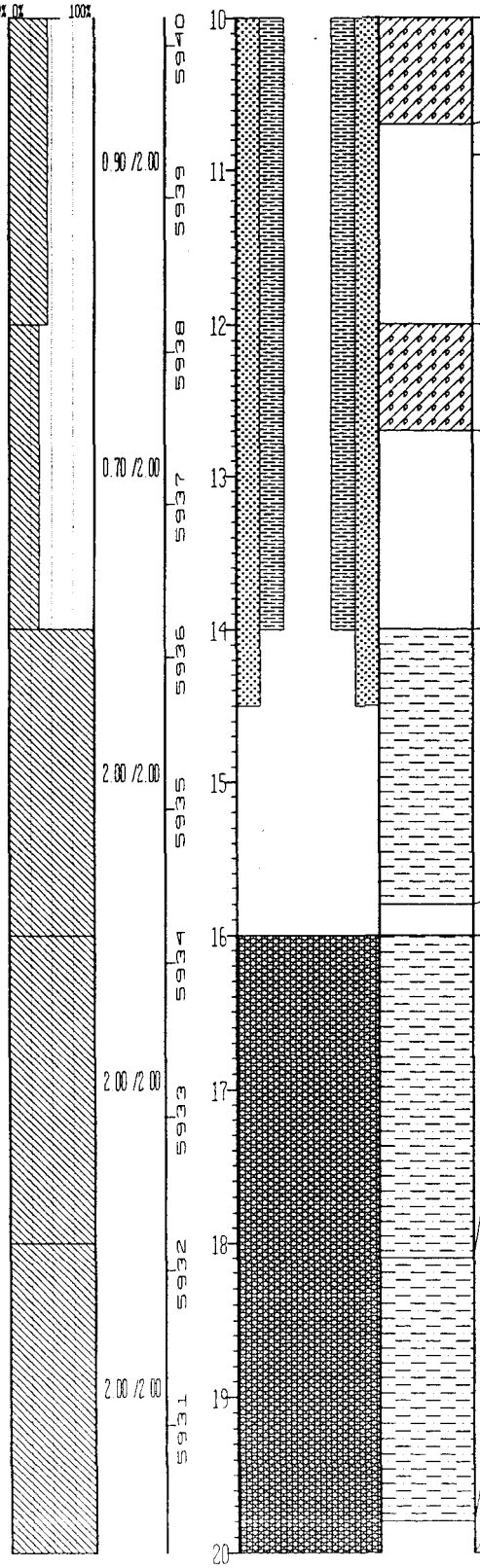


UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	Top soil, start of boring at 0.90 ft.
GM:	Sandy Gravel with some silt - dark yellowish brown (10YR4/2) maximum gravel diameter .21', average .09', very fine- to coarse-grained sand, well graded, sub-rounded, low plasticity gravel is primarily quartzite, with some calcrete/caliche, sand contains abundant calcrete, quartz, organic/carbonaceous material, some rock fragments, trace mica, no apparent bedding, moist. 53% gravel, 34% sand, 9% silt, 4% clay.
	No recovery for this interval.
GM:	Sandy Gravel with some silt - dark yellowish brown (10RY4/2), as described above.
	VOA sample obtained from this interval.
	No recovery for this interval.
GC/sc:	Sandy Gravel with some clay - very pale orange (10YR8/2), maximum gravel diameter >.25', average .15', very fine- to coarse-grained sand, well graded, sub-angular to sub-rounded, low plasticity, gravel is primarily quartzite, some clasts coated with caliche and calcrete, sand contains abundant quartz, calcrete, some rock fragments, trace mica, no apparent bedding, moist. 42% gravel, 38% sand, 3% silt, 17% clay.
	No recovery for this interval.
SC:	Gravelly Sand with some clay - light brown (5YR5/6), as described below.
	No recovery for this interval.
SC:	Gravelly Sand with some clay - light brown (5YR5/6), as described below.
	VOA sample obtained from this interval.
	No recovery for this interval.
SC:	Gravelly Sand with some clay - light brown (5YR5/6), maximum gravel diameter .13', average .09", very fine- to coarse-grained sand, well graded, sub-rounded to rounded, low to medium plasticity, gravel is primarily quartzite with some calcrete clasts at 10.1' and granite at 12.0-12.3', sand contains abundant quartz, some feldspar, rock fragments, trace dark minerals, mica, no apparent bedding, moist. 27% gravel, 43% sand, 6% silt, 24% clay.
	No recovery for this interval.

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 20.0	GROUND ELEVATION (FT): 5950.18	PROJECT NUMBER: OU2RI	LOG OF BORING NUMBER:	
NORTH: 749586.38	AREA: SE TRENCHES	CASING DIAMETER (IN): 2.0	GEOLOGIST: J.P. O'BRIEN		
EAST: 2087832.49	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 01/22/92		08291

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 5.5 FT. - 3.5 FT. BACKFILL MATERIAL: BENTONITE 20.0 FT. - 16.0 FT.

CHEMICAL SAMPLE / GRADATIONAL SA. / DEPTH / SAMPLE NUMBER / SAMPLE GRAIN SIZE (0% 50% 100%) / PERCENT RECOVERY (0% 100%) / RECOVERY/INTERVAL / DATUM (FT) / DEPTH (FT) / WELL OR PIEZOMETER CONSTRUCTION / LITHOLOGY / UNIFIED SOILS CLASSIFICATION OR ROCK TYPE / DESCRIPTION



Unified Soils Classification or Rock Type	Description
SC	Gravelly Sand with some clay - light brown (5YR5/6), as described above, clast of calcrete at 10.1', increased sand content and decreased gravel content at 10.0-10.9'.
	VOA sample obtained from this interval.
	No recovery for this interval.
SC	Gravelly Sand with some clay - light brown (5YR5/6), as described above, fractured granite clast at 12.0-12.3'.
	No recovery for this interval. Top of bedrock at 14.0'.
SANDY CLAYSTONE	Sandy Claystone with some silt - light olive gray (5Y6/1), very fine- to fine-grained, well to very well sorted, sub-rounded, approximately 7% porosity, argillaceous cement, slightly friable, abundant quartz, trace feldspar, iron staining, mica, crudely laminated to mottled, carbonaceous material along laminea planed throughout, slight increase in sand content at 15.2-15.8', moist. 27% sand, 8% silt, 65% clay.
	VOA sample obtained from this interval.
SANDY CLAYSTONE	Sandy Claystone with some silt - light olive gray (5Y6/1), as described above.
SANDY CLAYSTONE	Sandy Claystone with some silt - dusky yellow (5Y6/4), laminated with light olive gray (5Y6/1), silty clay, very fine- to fine-grained, well to very well sorted, sub-rounded to rounded, approximately 7% porosity, argillaceous cement, slightly to moderately friable, abundant quartz, some iron staining, trace feldspar, thinly to thickly laminated, increased iron staining at 19.1-20.0', iron nodule at 19.5', moist. 25% sand, 7% silt, 68% clay.
	VOA sample obtained from this interval.
	Total depth at 20.0 ft.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 44.0	GROUND ELEVATION (FT): 5947.20	PROJECT NUMBER: 0U2RI	LOG OF BORING NUMBER:
NORTH:	749606.51	AREA: SE TRENCHES	CASING DIAMETER (IN): 2.0	GEOLOGIST: J.P. O'BRIEN	08391
EAST:	2088034.18	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 01/21/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 25.5 FT. - 22.2 FT. BACKFILL MATERIAL: BENTONITE 44.0 FT. 40.0 FT.

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
										Top Soil, start of boring at 0.90 ft.
									SC	Gravelly Sand with some clay - dark yellowish brown (10YR4/2) at 0.9-1.1', thinly interbedded with moderate orange pink (5YR8/4) at 1.1-1.7', moderate orange pink (5YR8/4) at 1.7-3.5', maximum gravel diameter 1", average .03', fine- to coarse-grained sand, well graded, angular to sub-rounded, low plasticity, gravel primarily quartzite, some weathered granite and reworked calcrete, sand contains abundant calcrete, quartz, some rock fragments, trace dark minerals, paleosoil horizon at 1.7' with solution surface, slightly moist. 15% gravel, 72% sand, 3% silt, 10% clay
				1.20 /3.00	5946	1				
					5945	2				No recovery for this interval
					5944	3			SC	Gravelly Sand with some clay - moderate orange pink (5YR8/4) as described above
				1.60 /2.00	5943	4			GC/gw	Sandy Gravel with some clay - very pale orange (10YR8/2), as described below
	BH0028HC02									VOA sample obtained from this interval
									GC/gw	Sandy Gravel with some clay - very pale orange (10YR8/2), as described below
					5942	5				No recovery for this interval
									GC/gw	Sandy Gravel with some clay - very pale orange (10YR8/2), maximum gravel diameter 2", average .11', sand is fine- to coarse-grained, well graded, gravel is rounded, sand is sub-angular to rounded, low plasticity, gravel is primarily quartzite, sand contains abundant calcrete, quartz, some iron staining, rock fragments, trace dark minerals, increase iron staining at 5.0-5.5', no apparent bedding, dry. 57% gravel, 33% sand, 3% silt, 7% clay
				0.60 /2.00	5941	6				
	BH0028HC02									No recovery for this interval
					5940	7				No recovery for this interval
				0.00 /2.00	5939	8				
					5938	9			GC/gw	Sandy Gravel with some clay - very pale orange (10YR8/2), as described above
	W0028HC02			0.50 /1.00						Sandy Gravel with some silt - moderate yellowish brown (10YR5/4), as described below
						10				No recovery for this interval

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 44.0	GROUND ELEVATION (FT):	5947.20	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749606.51	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	08391
EAST:	2088034.18	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	01/21/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 25.5 FT. - 22.2 FT. BACKFILL MATERIAL: BENTONITE 44.0 FT. 40.0 FT.

CHEMICAL SAMPL / GRADATIONAL S.	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
										No recovery for this interval
					5937	10			GM/gw	Sandy Gravel with some silt - moderate yellowish brown (10YR5/4), as described below
				0.40 /2.00	5936	11				No recovery for this interval.
					5935	12			GM/gw	Sandy Gravel with some silt - moderate yellowish brown (10YR5/4), as described below
	BH00286WC02									VOA sample obtained from this interval.
									GM/gw	Sandy Gravel with some silt - moderate yellowish brown (10YR5/4), as described below
	BH00287WC02			0.50 /2.00	5934	13				No recovery for this interval.
					5933	14			GM/gw	Sandy Gravel with some silt - moderate yellowish brown (10YR5/4), maximum gravel diameter .18', average .05', sand is very fine- to coarse-grained, well graded, gravel is rounded, sand is angular to sub-rounded, low plasticity, gravel is primarily quarzite with trace translucent quartzite at 16.1', sand contains abundant quartz, some calcrete, rock fragments iron stain, feldspar, dark minerals, trace mica, no apparent bedding, dry. 50% gravel, 38% sand, 9% silt, 3% clay
				0.40 /2.00	5932	15				No recovery for this interval
	BH00288WC02				5931	16			GM/gw	Sandy Gravel with some silt - mod. yellowish brown (10RY5/4), as described above, translucent quartzite clast at 16.1'
										VOA sample obtained from this interval.
									GM/gw	Sandy Gravel with some silt - moderate yellowish brown (10YR5/4), as described above
				0.40 /2.00	5930	17				No recovery for this interval
					5929	18			GM/gw	Sandy Gravel with some silt - moderate yellowish brown (10YR5/4), as described above
	BH00289WC02			2.00 /2.00	5928	19			SM	Silty Sand with some clay - moderate reddish brown (10R4/6), maximum gravel diameter .03', sand is very fine- to coarse-grained, well graded angular to rounded, low to medium plasticity, gravel is primarily quartzite with some silty clay clasts, sand contains abundant quartz, some rock fragments, dark minerals, iron staining, trace feldspar, mica, no apparent bedding, moist. 5% gravel, 61% sand, 21% silt, 13% clay
						20				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 44.0	GROUND ELEVATION (FT): 5947.20	PROJECT NUMBER: OU2RI	LOG OF BORING NUMBER:
NORTH: 749606.51	AREA: SE TRENCHES	CASING DIAMETER (IN): 2.0	GEOLOGIST: J.P. O'BRIEN	08391
EAST: 2088034.18	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 01/21/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 25.5 FT. - 22.2 FT. BACKFILL MATERIAL: BENTONITE 44.0 FT. 40.0 FT.

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50%	100% 0% 100%							
				1.90 /2.00	5927 5926	20 21			SM:	Silty Sand with some clay - light brown (5YR5/6), maximum gravel diameter >.25', average .1', sand is very fine- to coarse- grained, well graded, sub-rounded, low to medium plasticity, gravel is primarily quartzite, with some clasts of sandy clay (light greenish gray [5GY8/1]), sand contains abundant quartz, some iron staining, rock fragments, trace dark minerals, feldspar, mica, iron nodule at 22.1', manganese oxide stain 21.8-22.0', no apparent bedding, slightly moist. 2% gravel, 70% sand, 16% silt, 12% clay.
	BH00290WC02									VOA sample obtained from this interval.
					5925	22			SM:	Silty Sand with some clay - light brown (5YR5/6), as described above.
				1.30 /2.00	5924	23			GC:	Sandy Gravel with some clay - grayish orange (10YR7/4), maximum gravel diameter >.25, average .08', sand is very fine- to coarse-grained, well graded, sub-rounded, low to medium plasticity, gravel is primarily quartzite, some with iron stain coating, sand contains abundant quartz, some iron staining, rock fragments, dark minerals, trace feldspar, mica, no apparent bedding, slightly moist. 56% gravel, 30% sand, 3% silt, 11% clay.
					5923	24				No recovery for this interval.
	BH00291WC02								GC:	Sandy Gravel with some clay - grayish orange (10YR7/4), as described above.
	BH00292WC02			0.60 /2.00	5922	25				VOA sample obtained from this interval.
									SC:	Clayey Sand with some silt - light brown (5YR5/6), as described below.
										No recovery for this interval.
					5921	26			SC:	Clayey Sand with some silt - light brown (5YR5/6), maximum gravel diameter .13', average .1', sand is very fine- to medium-grained, poorly graded, sub-rounded to rounded, medium plasticity, gravel primarily quartzite, some clasts of sandy clay (light greenish gray [5GY8/1]), trace calcrete clasts at 27.7', sand contains abundant quartz, some feldspar, iron stain, trace dark minerals, rock fragments, mica, trace carbonaceous material defining laminea throughout, slightly moist. 1% gravel, 57% sand, 9% silt, 33% clay.
				2.00 /2.00	5920	27				
					5919	28				
				2.00 /2.00	5918	29				
	BH00293WC02					30				VOA sample obtained from this interval.

STATE PLANE COORDINATE		TOTAL DEPTH (FT) 44.0	GROUND ELEVATION (FT)	5947.20	PROJECT NUMBER	OU2RI
NORTH	749606.51	AREA SE TRENCHES	CASING DIAMETER (IN)	2.0	GEOLOGIST	J.P. O'BRIEN
EAST	2088034.18	LOCATOR NUMBER H15	BOREHOLE DIAMETER (IN)	10.0	DATE DRILLED	01/21/92

LOG OF BORING NUMBER 08391

REMARKS: HOLLOW-STEM AUGER BENTONITE SEAL 25.5 FT - 22.2 FT BACKFILL MATERIAL: BENTONITE 44.0 FT - 40.0 FT

DEPTH	CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			0% 50% 100%	0% 100%			30			SC	Clayey Sand with some silt - light brown (5YR5/6), as described above
						5917				GC	Sandy Gravel with some clay - light brown (5YR5/6), as described below
		BH00294WC02			0.40 /2.00	5916	31				No recovery for this interval
						5915	32			GC	Sandy Gravel with some clay - light brown (5YR5/6), maximum gravel diameter >.25', average .11', sand is very fine- to coarse-grained, well graded, gravel is rounded, sand is angular to sub-rounded, low plasticity, gravel is primarily quartzite, sand contains abundant quartz, some rock fragents, dark minerals, iron staining, feldspar, trace manganese oxide, mica, some gravel pebbles appear imbricated, sharp but irregular contact with underlying bedrock, slightly moist. 51% gravel, 36% sand, 5% silt, 8% clay
		BH00295WC02			1.20 /2.00	5914	33				VOA sample obtained from this interval
						5913	34			GC	Sandy Gravel with some clay - light brown (5YR5/6), as described above
											No recovery for this interval
					0.60 /2.00	5912	35			GC	Sandy Gravel with some clay - light brown (5YR5/6), as described above
											No recovery for this interval
						5911	36			GC	Sandy Gravel with some clay - light brown (5YR5/6), as described above. Top of bedrock at 37.2 ft
		BH00298WC02			2.00 /2.00	5910	37			SANDY CLAYSTONE	Sandy Claystone with some silt - medium light gray (N6), as described below
		BH00297WC02									VOA sample obtained from this interval
						5909	38			SANDY CLAYSTONE	Sandy Claystone with some silt - medium light gray (N6), very fine-grained, very well sorted, sub-angular to sub-rounded, approximately 5% porosity, argillaceous cement, slightly to non-friable, abundant, quartz, mottled to irregularly laminated, iron stain along and discordent to lamination, convolute bedding, increased clay content at 39.3-40.0', dry. 23% sand, 7% silt, 70% clay
					2.00 /2.00	5908	39				
							40				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 44.0	GROUND ELEVATION (FT):	5947.20	PROJECT NUMBER:	OU2RI
NORTH: 749606.51	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST: 2088034.18	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	01/21/92

LOG OF BORING NUMBER: 08391

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 25.5 FT. - 22.2 FT. BACKFILL MATERIAL: BENTONITE 44.0 FT. 40.0 FT.

DEPTH	CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			0% 50% 100%	0% 100%							
					2.00 /2.00	5907 5906	40 41				
		BH00300WC02									VOA sample obtained from this interval.
		BH00301WC02								SANDY CLAYSTONE	Sandy Claystone with some silt - medium light gray (N6), as described above, very thin beds of silty clay with clay laminations and convolute lamination at 41.8-42.0', increased iron staining at 42.5-44.0', increased clay content at 42.7-44.0'
					2.00 /2.00	5905 5904	42 43				
						5903 5902 5901 5900 5899 5898	44 45 46 47 48 49 50				Total depth at 44.0 ft.

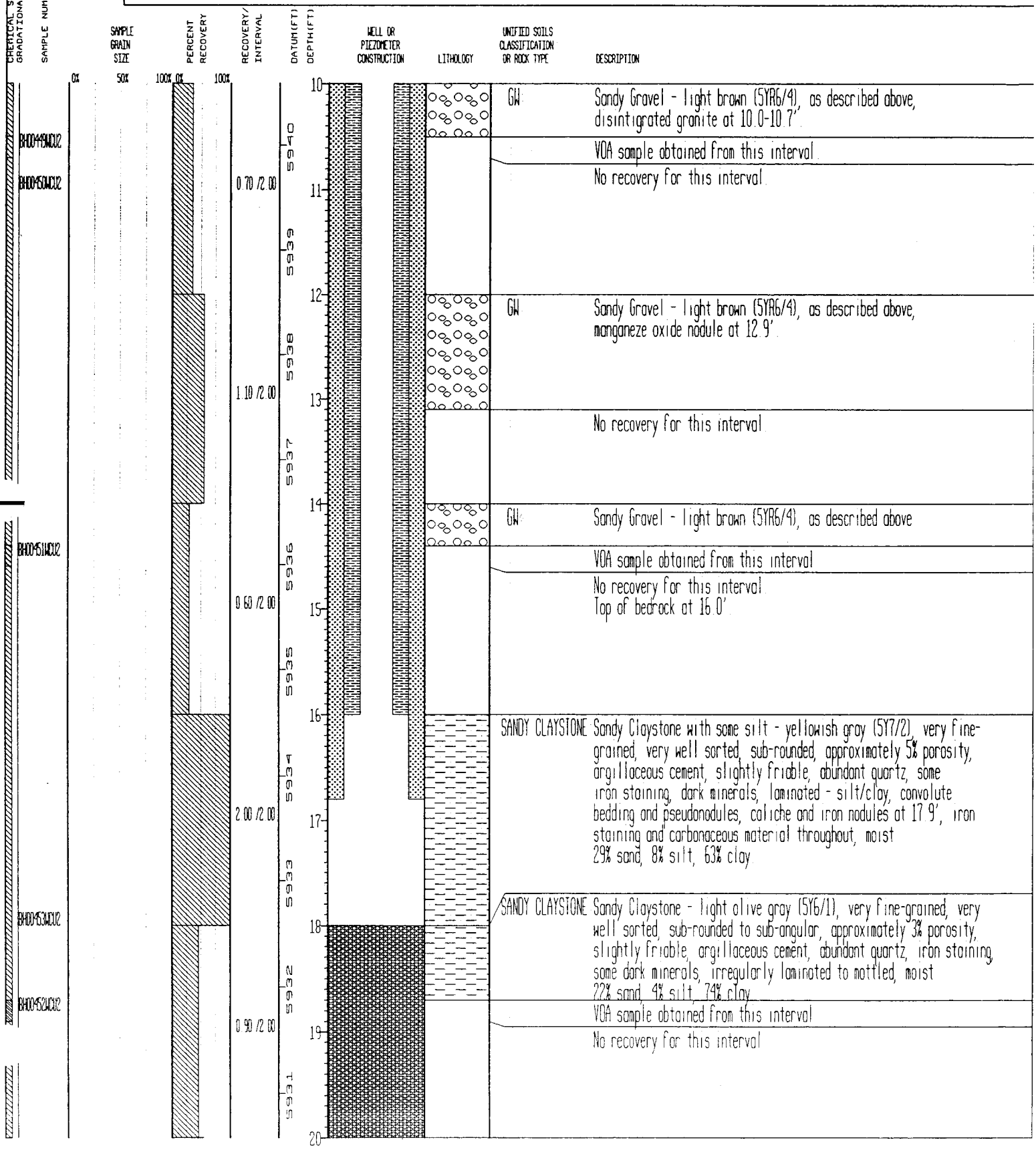
STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 22.0	GROUND ELEVATION (FT):	5950.58	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH: 749506.15	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	08491
EAST: 2087871.84	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	01/20/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 5.4 FT. - 2.4 FT. BACKFILL MATERIAL: BENTONITE 23.0 FT. -18.0 FT.

CHEMICAL SAMPLE / GRADATIONAL SI	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
										Top soil, start of boring at 0.90 ft.
				0.80 /2.00	5950 5949	0 1			SC	Gravelly Sand with some clay - grayish orange (10YR7/4), maximum gravel diameter .17', average .1', very fine- to coarse-grained, well graded, gravel is rounded, sand angular to sub-rounded, low to medium plasticity, gravel primarily caliche coated quartzite and calcrete, sand contains abundant quartz, calcrete, some feldspar, rock fragments, trace iron staining, mica, no apparent bedding, moist. 30% gravel, 48% sand, 4% silt, 18% clay.
						2				No recovery for this interval.
	BH00445WC02				5948				GC	Sandy Gravel with some clay - very pale orange (10YR8/2), as described below.
										VOA sample obtained from this interval.
				0.70 /2.00		3				No recovery for this interval.
					5947				GC	Sandy Gravel with some clay -very pale orange (10YR8/2), maximum gravel diameter .2', average .1', very fine- to coarse-grained sand, well graded, sub-angular to sub-rounded, low plasticity, gravel is primarily caliche coated quartzite sand contains abundant quartz, calcrete, some rock fragments feldspar, trace iron staining, mica, dark minerals, no apparent bedding, pervasive iron staining at 2.0-2.7', increased caliche/calcrete at 4.0-8.0', moist. 43% gravel, 41% sand, 2% silt, 14% clay.
	BH00448WC02			1.00 /2.00	5946	4 5				No recovery for this interval.
					5945					
					5944	6			GC	Sandy Gravel with some clay - very pale orange (10RY8/2), as described above.
	BH00447WC02			1.10 /2.00		7				VOA sample obtained from this interval.
					5943					No recovery for this interval.
					5942	8			GW	Sandy Gravel - light brown (5YR6/4), maximum gravel diameter >.25', avgerage .09', fine- to coarse-grained sand, well graded, angular to sub-rounded, low plasticity, gravel primarily quartzite, some iron staining and granite at 10.0-10.7', sand contains abundant quartz, iron staining, some rock fragments, feldspar, dark minerals, trace mica, manganese oxide nodule at 12.9', moist. 51% gravel, 42% sand, 3% silt, 4% clay.
				0.70 /2.00		9				No recovery for this interval.
					5941	10				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 22.0	GROUND ELEVATION (FT): 5950.58	PROJECT NUMBER: OU2RI	LOG OF BORING NUMBER
NORTH: 749506.15	AREA: SE TRENCHES	CASING DIAMETER (IN): 2.0	GEOLOGIST: J.P. O'BRIEN	08491
EAST: 2087871.84	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 01/20/92	

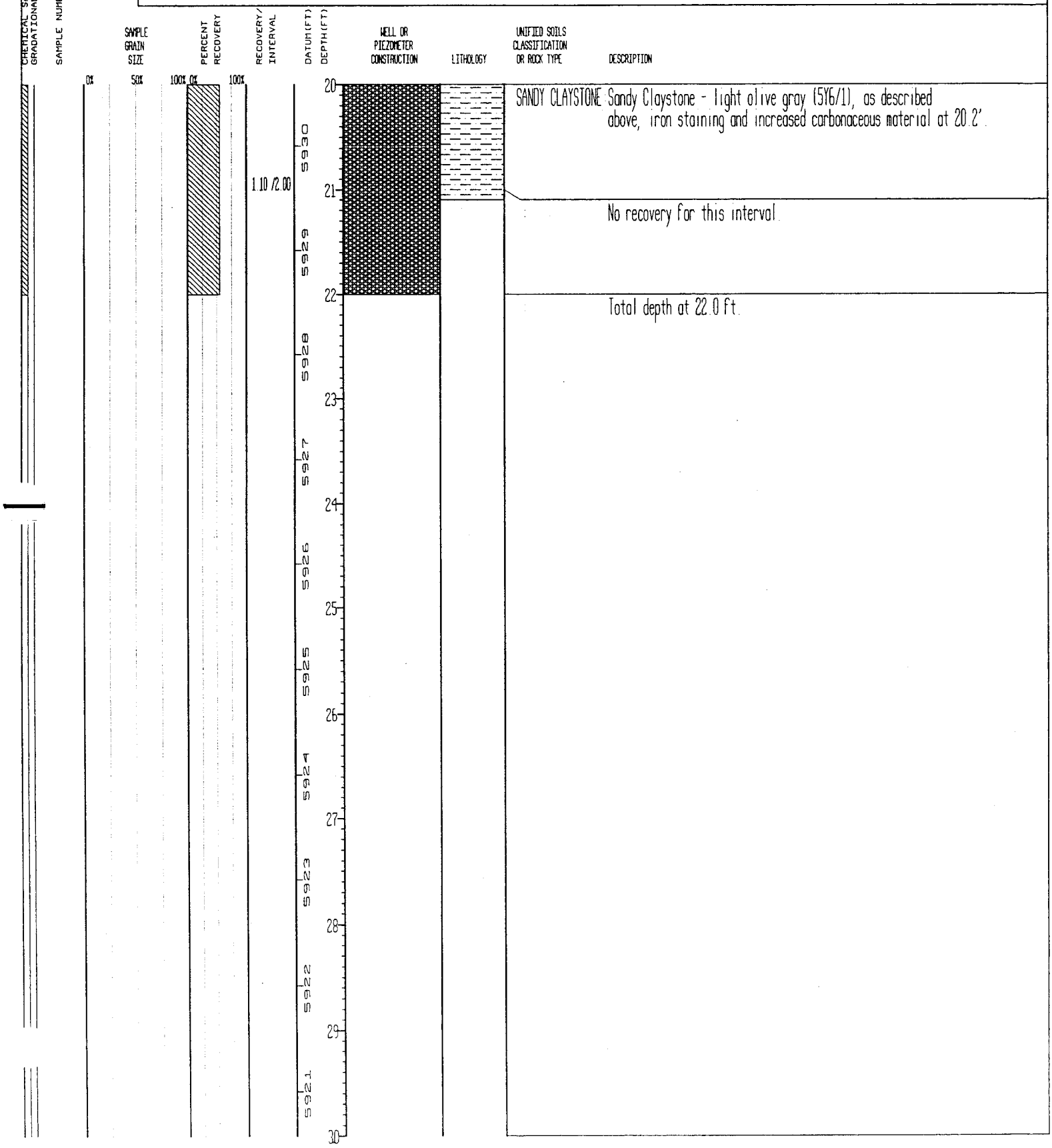
REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 5.4 FT. - 2.4 FT. BACKFILL MATERIAL: BENTONITE 23.0 FT. -18.0 FT.



STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 22.0	GROUND ELEVATION (FT):	5950.58	PROJECT NUMBER:	OU2RI
NORTH: 749506.15	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST: 2087871.84	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	01/20/92

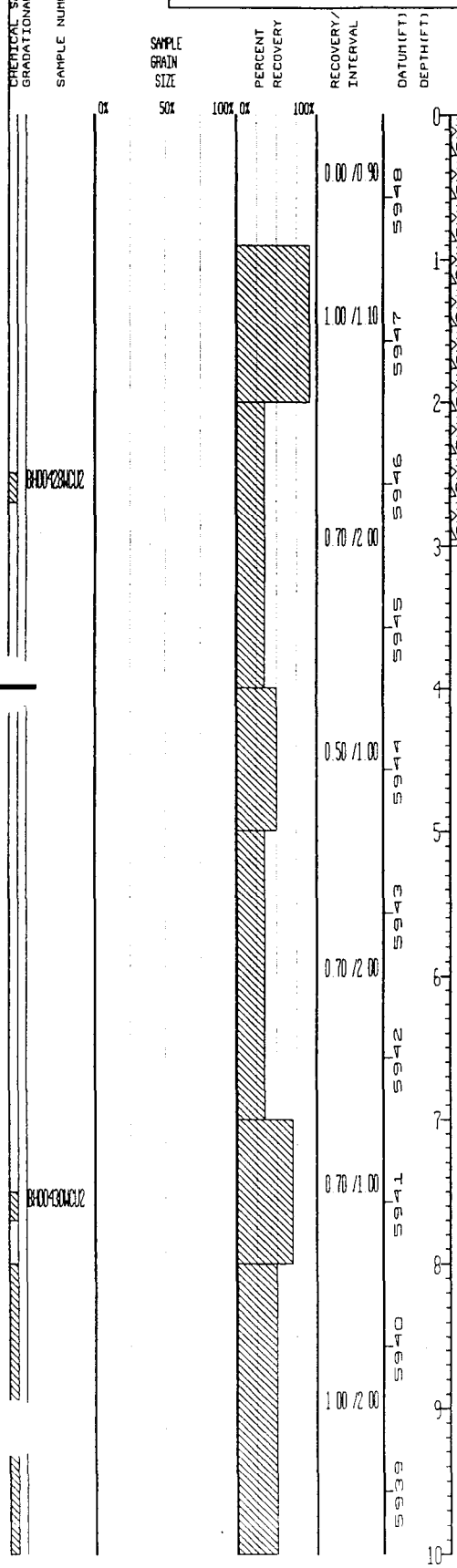
LOG OF BORING NUMBER: 08491

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 5.4 FT. - 2.4 FT. BACKFILL MATERIAL: BENTONITE 23.0 FT. -18.0 FT.



STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 48.0	GROUND ELEVATION (FT): 5948.57	PROJECT NUMBER: OU2RI	LOG OF BORING NUMBER:
NORTH:	749525.56	AREA: SE TRENCHES	CASING DIAMETER (IN): 2.0	GEOLOGIST: J.P. O'BRIEN	08591
EAST:	2088006.77	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 01/16/92	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 26.0 FT. - 29.7 FT. BACKFILL MATERIAL: BENTONITE 44.0 FT - 48.9 FT.



		Top soil, start of boring at 0.90 ft.
	GM	Sandy Gravel with some silt - dusky brown (5YR2/2), maximum gravel diameter .2', average .11', very fine- to coarse-grained sand, well graded, angular to sub-rounded, low plasticity, gravel contains rounded phyllite and quartzite, sand contains abundant organic/carbonaceous material, quartz, some calcrete, rock fragments, feldspar, no apparent bedding, moist. 53% gravel, 35% sand, 9% silt, 3% clay
	SC	Clayey Sand with some gravel and silt - dark reddish brown (10R3/4), maximum gravel diameter .06', average .02', very fine- to coarse-grained sand, well graded, sub-angular to sub-rounded, medium plasticity, gravel primarily calcrete and quartzite, sand contains abundant quartz, iron and magnesium oxide staining, some rock fragments, feldspar, no apparent bedding, moist. 14% gravel, 48% sand, 12% silt, 26% clay
		VOA sample obtained from this interval
		No recovery for this interval.
	GW	Sandy Gravel with some silt - light brown (5YR5/6), as described below.
		No recovery for this interval.
	GW	Sandy Gravel with some silt - light brown (5YR5/6), as described below.
		No recovery for this interval.
	GW	Sandy Gravel with some silt - light brown (5YR5/6), as described below.
		VOA sample obtained from this interval
		No recovery for this interval.
	GW	Sandy Gravel with some silt - light brown (5YR5/6), maximum gravel diameter > .25', average .12', very fine- to coarse-grained sand, well graded, sub-rounded to sub-angular, low plasticity, gravel is primarily quartzite, some schistose quartzite at 8.5', sand contains abundant quartz, some iron staining feldspar, rock fragments, trace dark minerals, mica, magnesium oxide, no apparent bedding, moist. 46% gravel, 44% sand, 7% silt, 3% clay
		No recovery for this interval.

STATE PLANE COORDINATE		TOTAL DEPTH (FT) 48.0	GROUND ELEVATION (FT) 5948.57	PROJECT NUMBER 002RI	LOG OF BORING NUMBER
NORTH	749525.56	AREA SE TRENCHES	CASING DIAMETER (IN) 2.0	GEOLOGIST J.P. O'BRIEN	08591
EAST	2088006.77	LOCATOR NUMBER H15	BOREHOLE DIAMETER (IN) 10.0	DATE DRILLED 01/16/92	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 26.0 FT. - 29.7 FT. BACKFILL MATERIAL: BENTONITE 44.0 FT. - 48.9 FT.

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			5938	10	GW	Sandy Gravel with some silt - light brown (5YR5/6), as described above.
	BH0132VC02					VOA sample obtained from this interval.
	BH0131VC02	0.90 /2.00		11		No recovery for this interval.
			5937			
			5936	12	GW	Sandy Gravel with some silt - light brown (5YR5/6), as described above, increased magnesium oxide at 12.5-13.0'.
		1.00 /2.00		13		No recovery for this interval.
			5935			
			5934	14	GW	Sandy Gravel with some silt - light brown (5YR5/6), as described above, increased sand content at 14.0-16.0'.
	BH0133VC02					VOA sample obtained from this interval.
		0.80 /2.00		15		No recovery for this interval.
			5933			
			5932	16	SM	Gravelly Sand with some silt - moderate brown (5YR4/4), maximum gravel diameter 2', average .04', very fine- to coarse-grained sand, large gravel clasts are fractured, unfractured clasts are rounded, sand is angular to sub-rounded, low plasticity, gravel is primarily quartzite with some calcrete, sand contains abundant quartz, some iron staining, feldspar, rock fragments, trace dark minerals, mica, no apparent bedding, moist. 25% gravel, 56% sand, 11% silt, 8% clay
	BH0134VC02	0.70 /2.00		17		
			5931			
				18		No recovery for this interval.
			5930			
		0.00 /2.00		19		
			5929	20		

SAMPLE GRAIN SIZE: 0% 50% 100%. PERCENT RECOVERY: 0% 100%.

WELL OR PIEZOMETER CONSTRUCTION. LITHOLOGY.

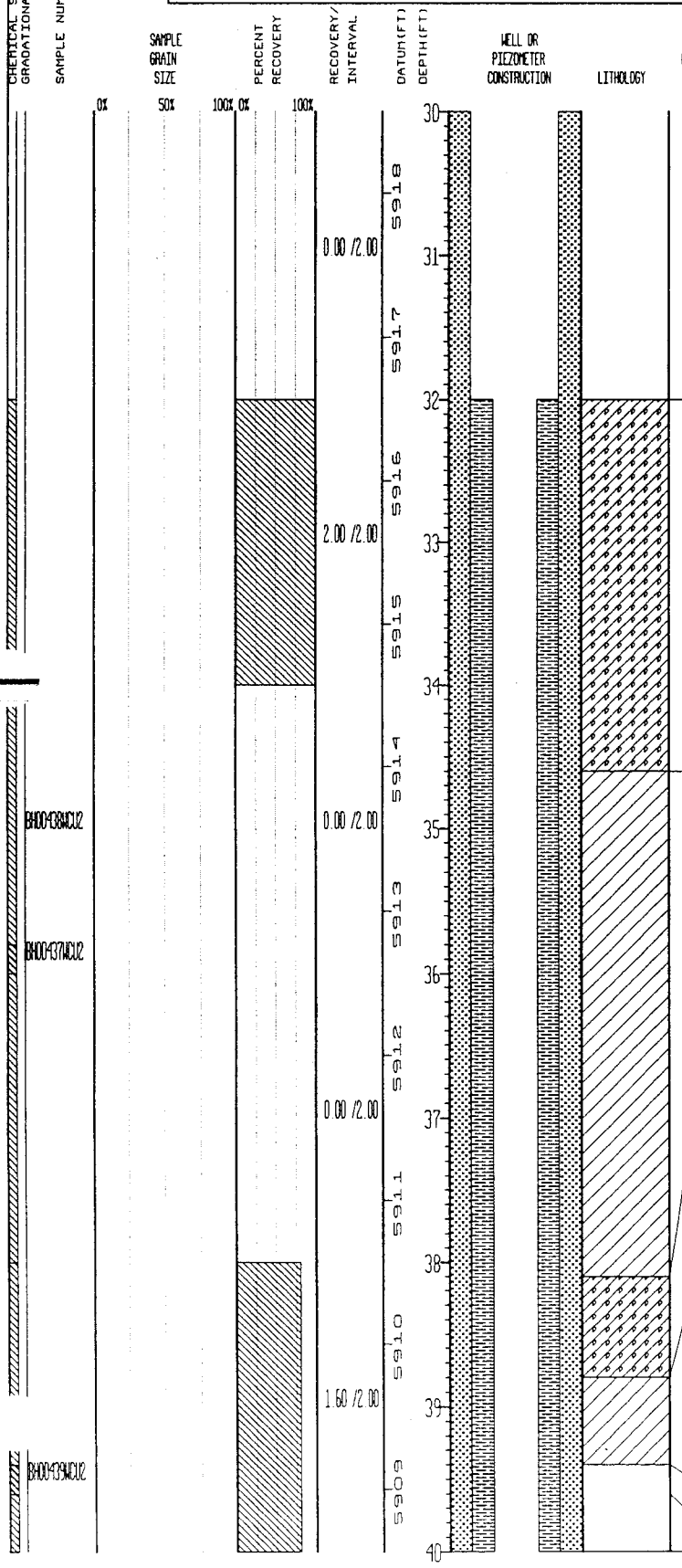
STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 48.0	GROUND ELEVATION (FT):	5948.57	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749525.56	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	08591
EAST:	2088006.77	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	01/16/92	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 26.0 FT. - 29.7 FT. BACKFILL MATERIAL: BENTONITE 44.0 FT. - 48.9 FT.

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
				1.80 /2.00	5928, 5927	20, 21			SC:	Clayey Sand with some silt - moderate reddish brown (10R4/6) maximum gravel diameter .07', average .02', very fine- to coarse-grained sand, well graded, sub-angular to sub-rounded, medium plasticity, gravel primarily quartzite, sand contains abundant quartz, some iron staining, feldspar, trace rock fragments, caliche/calcrete, dark minerals, mica, no apparent bedding, moist. 1% gravel, 67% sand, 12% silt, 20% clay.
					5926	22				No recovery for this interval.
	BH00-056WC02			0.00 /2.00	5925	23				
				1.70 /2.00	5924, 5923	24, 25			SC:	Clayey Sand with some silt - moderate yellowish brown (10YR5/4), maximum gravel diameter > .25', average .03', very fine- to coarse-grained sand, well graded, sub-rounded, medium plasticity, gravel primarily quartzite and calcrete, sand contains abundant quartz, some feldspar, rock fragments, dark minerals, trace mica, iron staining, carbonaceous material, silt/clay laminea at 24.0-24.4', moist. 1% gravel, 56% sand, 9% silt, 34% clay.
	BH00-055WC02					26				No recovery for this interval.
										VOA sample obtained from this interval.
				0.00 /2.00	5922, 5921	27				No recovery for this interval.
						28			SC	Clayey Sand with some silt - moderate yellowish brown (10YR5/4), as described above.
				0.00 /2.00	5920, 5919	29, 30				No recovery for this interval.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 48.0	GROUND ELEVATION (FT):	5948.57	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	749525.56	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	08591
EAST:	2088006.77	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	01/16/92	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 26.0 FT. - 29.7 FT. BACKFILL MATERIAL: BENTONITE 44.0 FT. - 48.9 FT.



SC: Clayey Sand with some silt - moderate yellowish brown (10YR5/4), as described above, increased sand content at 34.0-34.6', thin sand bed at 34.4-34.6'.

CL: Sandy Clay with some silt - yellowish gray (5Y7/2), very fine- to medium-grained sand, poorly graded, sub-rounded, medium plasticity, abundant quartz, some feldspar, trace dark minerals, mica, irregularly laminated to mottled, moist
32% sand, 7% silt, 61% clay.

SC: Clayey Sand with some silt - grayish orange (10YR7/4), very fine- to medium-grained sand, poorly graded, sub-rounded to rounded, medium to low plasticity, abundant quartz, some feldspar, trace dark minerals, mica, thickly laminated, moist.
59.5% sand, 8.5% silt, 32% clay.

CL: Sandy Clay with some silt - light greenish gray (5GY8/1), very fine- to medium-grained, poorly graded, sub-rounded to rounded, medium plasticity, abundant quartz, some feldspar, mica, trace dark minerals, carbonaceous material, iron and magnesium oxide stain, irregularly laminated, moist
35% sand, 10% silt, 55% clay

VOA sample obtained from this interval.

No recovery for this interval.

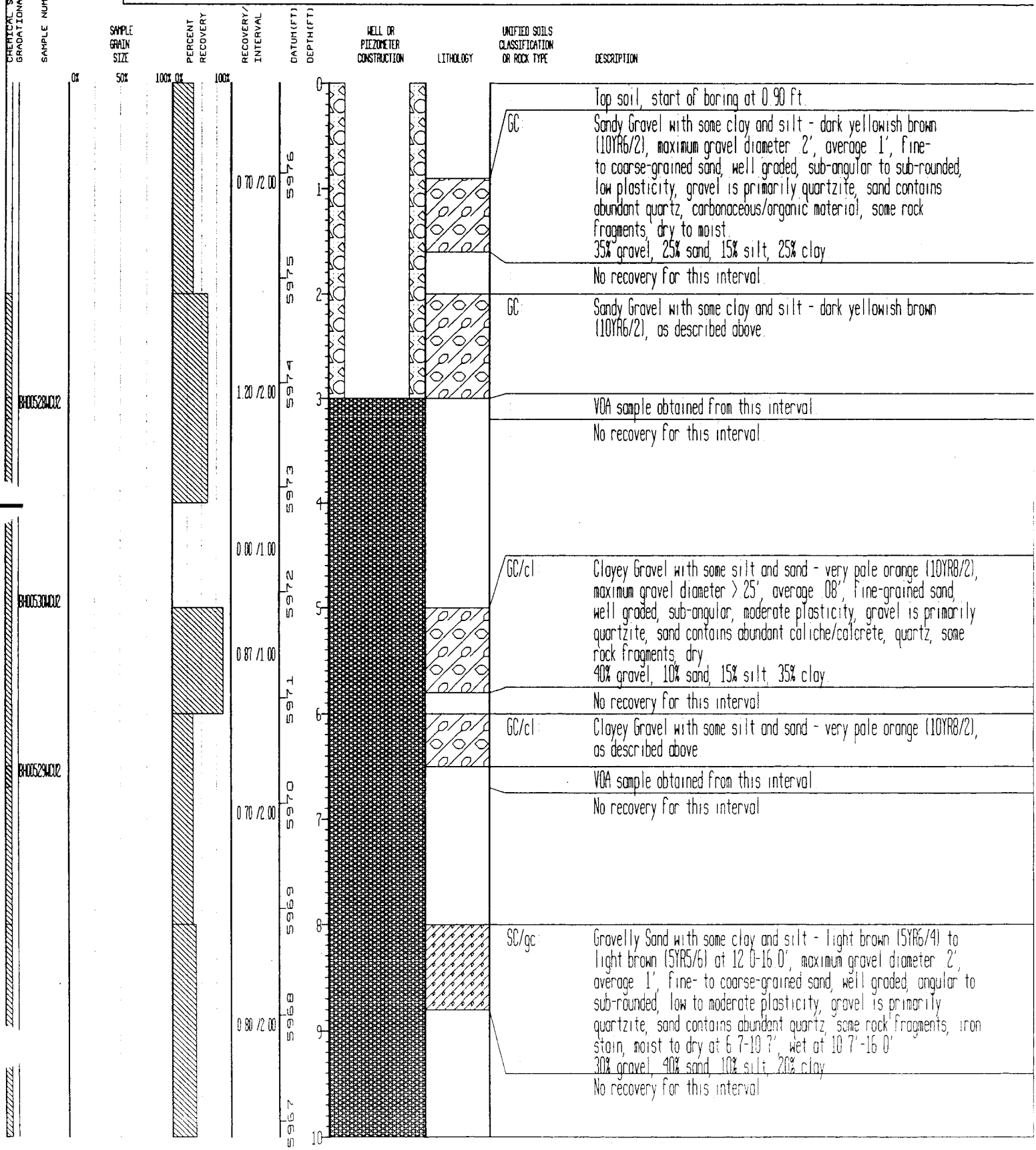
STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 48.0	GROUND ELEVATION (FT): 5948.57	PROJECT NUMBER: OU2RI	LOG OF BORING NUMBER:	
NORTH: 749525.56	AREA: SE TRENCHES	CASING DIAMETER (IN): 2.0	GEOLOGIST: J.P. O'BRIEN	08591	
EAST: 2088006.77	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 01/16/92		

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 26.0 FT. - 29.7 FT. BACKFILL MATERIAL: BENTONITE 44.0 FT. - 48.9 FT.

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% – 50% – 100%)	PERCENT RECOVERY (0% – 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	BH0040WC02			0.90 /2.00	5908	40			GW	Sandy Gravel - yellowish gray (5Y8/1), maximum clast diameter .15', average .09', very fine- to coarse-grained sand, well graded, sub-angular to sub-rounded, low plasticity, abundant quartz, feldspar, some rock fragments, dark minerals, trace mica, no apparent bedding, moist. 73% gravel, 21% sand, 3% silt, 3% clay. Top of bedrock at 40.7 ft.
					5907	41			SANDY CLAYSTONE	Sandy Claystone - light olive gray (5Y6/1), as described below
										No recovery for this interval.
				2.00 /2.00	5906	42			SANDY CLAYSTONE	Sandy Claystone - light olive gray (5Y6/1), very fine- to fine-grained, well sorted, sub-rounded to rounded, approximately 5% porosity, argillaceous cement, slightly friable, abundant quartz, trace rock fragments, irregularly laminated to mottled, moist. 37% sand, 5% silt, 58% clay
					5905	43				
	BH0041WC02									VOA sample obtained from this interval.
				2.00 /2.00	5904	44			SILTY CLAYSTONE	Silty Claystone with some sand - light olive gray (5Y5/2), very fine-grained, very well sorted, rounded, approximately 3% porosity, argillaceous cement, slightly to non-friable, abundant quartz, trace carbonaceous material, iron staining, mottled to irregularly laminated, carbonaceous material along laminea planes, moist. 16% sand, 17% silt, 67% clay.
					5903	45				
	BH0044WC02				5902	46			CLAYSTONE	Claystone - dark yellowish brown (10YR4/2), very fine-grained, very well sorted, rounded, approximately 2% porosity, argillaceous cement, slightly to non-friable, abundant quartz, mottled to irregularly laminated, carbonaceous fragments, discordent iron oxide staining, moist. 5% sand, 95% clay.
				2.00 /2.00	5901	47				
	BH0043WC02									VOA sample obtained from this interval.
					5900	48				Total depth at 48.0 ft.
					5899	49				
						50				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 22.0	GROUND ELEVATION (FT):	5976.85	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749148.95	AREA: 903 PAD	CASING DIAMETER (IN):		GEOLOGIST:	J.P. O'BRIEN	08691
EAST:	2085721.42	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	02/27/92	

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 22.0 FT. - 3.0 FT.



STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 22.0	GROUND ELEVATION (FT):	5976.85	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER
NORTH:	749148.95	AREA: 903 PAD	CASING DIAMETER (IN):		GEOLOGIST:	J.P. O'BRIEN	08691
EAST:	2085721.42	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	02/27/92	

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 22.0 FT. - 3.0 FT.

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	BH00532WCU2			10	SC/gc	Gravelly Sand with some clay and silt - light brown (5YR6/4), as described above
	BH00531WCU2					VOA sample obtained from this interval
	BH00533WCU2	0.70 /2.00	5966	11		VOA sample obtained from this interval No recovery for this interval
			5965	12	SC/gc	Gravelly Sand with some clay and silt - light brown (5YR6/4), as described above
		1.00 /2.00	5964	13		No recovery for this interval
			5963	14	SC/gc	Gravelly Sand with some clay and silt - light brown (5YR6/4), as described above
	BH00534WCU2	1.00 /2.00	5962	15		VOA sample obtained from this interval No recovery for this interval. Top of bedrock at 16.0 ft
			5961	16	SILTY CLAYSTONE	Silty Claystone with some sand - yellowish gray (5Y7/2), very fine-grained, very well sorted, sub-rounded, approximately 5% porosity, argillaceous cement, moderately friable, abundant frosted quartz, some dark minerals, iron stain, mottled, moist 12% sand, 15% silt, 73% clay
	BH00536WCU2	2.00 /2.00	5960	17		
			5959	18	SANDY CLAYSTONE	Sandy Claystone with some silt - grayish orange (10YR7/4), as described below
		2.00 /2.00	5958	19		
	BH00539WCU2		5957	20		VOA sample obtained from this interval

SAMPLE GRAIN SIZE: 0% 50% 100%. PERCENT RECOVERY: 0% 100%. WELL OR PIEZOMETER CONSTRUCTION. LITHOLOGY.

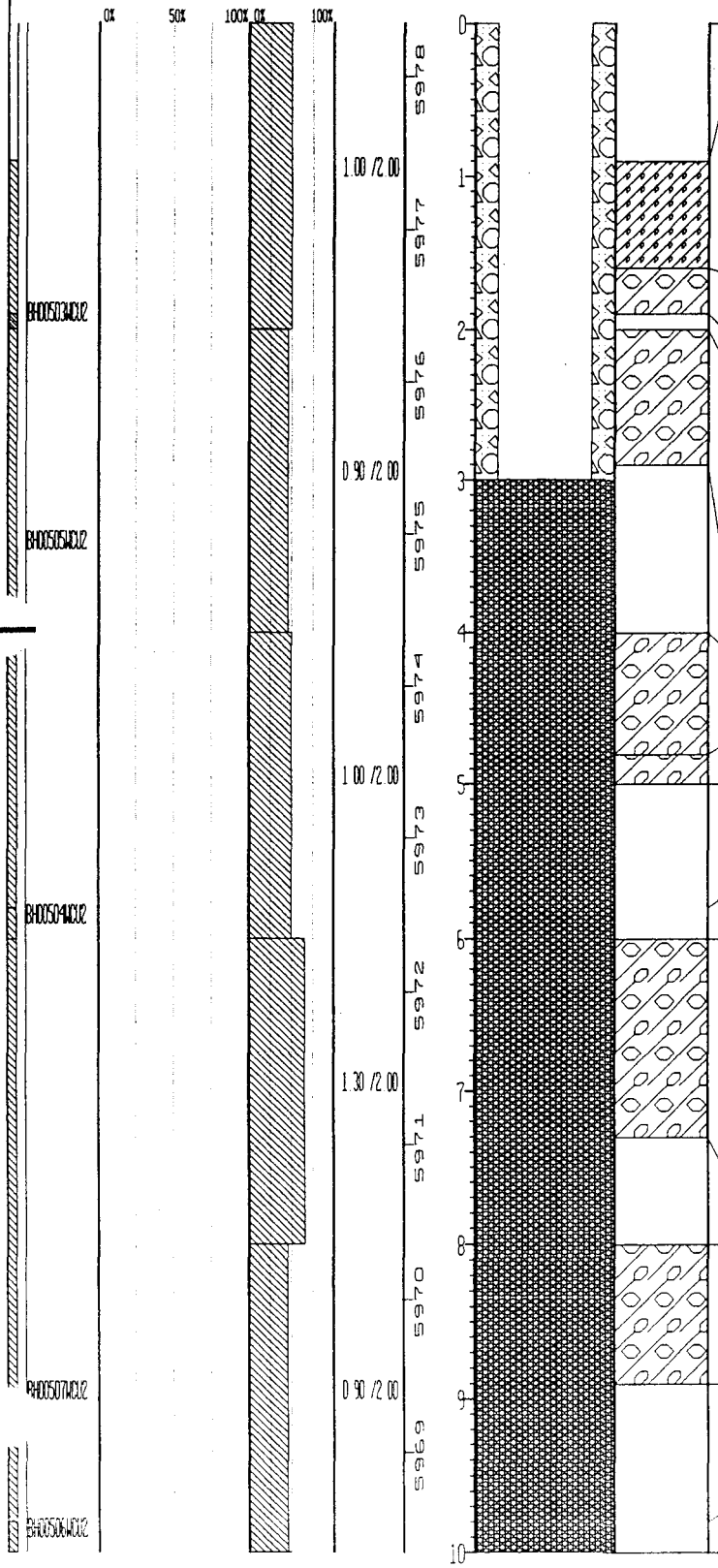
STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 22.0	GROUND ELEVATION (FT):	5976.85	PROJECT NUMBER:	002/RI	LOG OF BORING NUMBER:
NORTH: 749148.95	AREA: 903 PAD	CASING DIAMETER (IN):		GEOLOGIST:	J.P. O'BRIEN	08691
EAST: 2085721.42	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	02/27/92	

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 22.0 FT - 3.0 FT.

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% – 50% – 100%)	PERCENT RECOVERY (0% – 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	BH00537M012			2.00 /2.00	5956	20–21			SANDY CLAYSTONE	Sandy Claystone with some silt - grayish orange (10YR7/4) to dark yellowish orange (10YR6/6) where iron stained at 17.8-18.0', very fine- to fine-grained, moderately sorted, approximately 9% porosity, moderately friable, abundant frosted quartz, some dark minerals, iron stain, pseudonodules and large (.2'x.05') flame structure at 17.6-17.8', heavily iron stained and nodules at 17.8-18.0', carbonaceous material at 18.2-19.0', possible petroleum product at 19.3', thinly to thickly laminated, moist. 20% sand, 15% silt, 65% clay.
					5955	21–22				
					5954	22–23				Total depth at 22.0 ft.
					5953	23–24				
					5952	24–25				
					5951	25–26				
					5950	26–27				
					5949	27–28				
					5948	28–29				
					5947	29–30				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 28.0	GROUND ELEVATION (FT):	5978.35	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER
NORTH: 748927.55	AREA: 903 PAD	CASING DIAMETER (IN):		GEOLOGIST:	J.P. O'BRIEN	08791
EAST: 2085674.14	LOCATOR NUMBER: G12	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	02/21/92	

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 28.0 FT - 3.0 FT
GRAIN SIZE DISTRIBUTION AND DESCRIPTIONS ESTIMATED. RAD SCREEN RESULTS OVER 50 pi/g.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	Top soil, start of boring at 0.90 ft.
SC	Gravelly Sand with some clay and silt - pale yellowish brown (10YR6/2), maximum gravel diameter .11', average .04', fine- to coarse-grained sand, well graded, gravel is rounded, sand is angular to sub-rounded, low to moderate plasticity, gravel is primarily quartzite, sand contains abundant quartz, some rock fragments, dry. 30% gravel, 35% sand, 15% silt, 20% clay
GC	Sandy Gravel with some clay and silt - very pale orange (10YR8/2) to grayish orange (10YR7/4), as described below
	VOA sample obtained from this interval
GC	Sandy Gravel with some clay and silt - very pale orange (10YR8/2) to grayish orange (10YR7/4), maximum gravel diameter > .25', average .05', fine- to coarse-grained sand, well graded, gravel is rounded, sand is sub-angular to sub-rounded, moderate plasticity, gravel is primarily quartzite, some caliche coated, sand contains abundant quartz, caliche/calcrete, some rock fragments, iron stain, crudely stratified paleo-soil horizons at 1.9-2.1', dry 35% gravel, 25% sand, 15% silt, 25% clay
	No recovery for this interval
GC	Sandy Gravel with some clay and silt - very pale orange (10YR8/2) to grayish orange (10YR7/4), as described above
GC	Clayey Gravel with some sand - light brown (5YR5/6), as described below
	No recovery for this interval
	VOA sample obtained from this interval
GC	Clayey Gravel with some sand - light brown (5YR5/6), maximum gravel diameter > .25', average .08', fine- to coarse-grained sand, well graded, sub-rounded, moderate plasticity, gravel is primarily quartzite with trace granite, sand contains abundant quartz, some rock fragments, feldspar, kaolinized feldspar (grus), gravel size decrease abundance of sand and clay increase at 18.0-20.9', contact with underlying bedrock sharp 40% gravel, 25% sand, 5% silt, 30% clay
	No recovery for this interval
GC	Clayey Gravel with some sand - light brown (5YR5/6), as described above
	No recovery for this interval
	VOA sample obtained from this interval

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 28.0	GROUND ELEVATION (FT): 5978.35	PROJECT NUMBER: 002/RI	LOG OF BORING NUMBER:	
NORTH: 748927.55	AREA: 903 PAD	CASING DIAMETER (IN):	GEOLOGIST: J.P. O'BRIEN	08791	
EAST: 2085674.14	LOCATOR NUMBER: 612	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 02/21/92		

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 28.0 FT - 3.0 FT.
GRAIN SIZE DISTRIBUTION AND DESCRIPTIONS ESTIMATED. RAD SCREEN RESULTS OVER 50 pi/g.

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					5968	10			GC	Clayey Gravel with some sand - light brown (5YR5/6), as described above.
				1.00 /2.00	5967	11				No recovery for this interval.
					5966	12			GC	Clayey Gravel with some sand - light brown (5YR5/6), as described above.
				0.70 /2.00	5965	13				VOA sample obtained from this interval.
	90508Q012									
					5964	14			GC	Clayey Gravel with some sand - light brown (5YR5/6), as described above.
	BH005104Q012			0.90 /2.00	5963	15				No recovery for this interval
					5962	16			GC	Clayey Gravel with some sand - light brown (5YR5/6), as described above.
				0.80 /2.00	5961	17				No recovery for this interval
	BH005094Q012									VOA sample obtained from this interval
					5960	18			GC	Clayey Gravel with some sand - light brown (5YR5/6), as described above
				0.80 /2.00	5959	19				No recovery for this interval
						20				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 28.0	GROUND ELEVATION (FT):	5978.35	PROJECT NUMBER:	002/RI	LOG OF BORING NUMBER:
NORTH: 748927.55	AREA: 903 PAD	CASING DIAMETER (IN):		GEOLOGIST:	J.P. O'BRIEN	08791
EAST: 2085674.14	LOCATOR NUMBER: 612	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	02/21/92	

REMARKS: HOLLOW-STEM AUGER BACKFILL MATERIAL: BENTONITE 28.0 FT - 3.0 FT.

GRAIN SIZE DISTRIBUTION AND DESCRIPTIONS ESTIMATED RAD SCREEN RESULTS OVER 50 pi/g

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% – 50% – 100%)	PERCENT RECOVERY (0% – 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					5958	20			GC	Clayey Gravel with some sand - light brown (5YR5/6), as described above. Top of bedrock at 20.9 ft.
	BH00512WC02			1.20 /2.00	5957	21			CLAYSTONE	Claystone - light olive gray (5Y6/1) to dark yellowish orange (10YR6/6), as described below.
										No recovery for this interval.
	BH00511WC02									VOA sample obtained from this interval.
					5956	22			CLAYSTONE	Claystone - light olive gray (5Y6/1) to dark yellowish orange (10YR6/6), very fine-grained, very well sorted, sub-rounded to sub-angular, approximately 2% porosity (secondary solution fractures throughout effective porosity/permiability approximately 25%), argillaceous cement, moderately to slightly friable, abundant frosted quartz, mottled, heavy iron stain throughout, trace carbonaceous material throughout, moisture content unknown - rig geoligist log incomplete 3% sand, 4% silt, 93% clay.
				2.00 /2.00	5955	23				
					5954	24				
				2.00 /2.00	5953	25				
	BH00513WC02 BH00514WC02									VOA sample obtained from this interval.
					5952	26			CLAYSTONE	Claystone - light olive gray (5Y6/1) to dark yellowish orange (10YR6/6), as described above.
				1.00 /2.00	5951	27				No recovery for this interval.
					5950	28				Total depth at 28.0 ft.
					5949	29				
						30				

STATE PLANE COORDINATE		TOTAL DEPTH (FT): 30.0	GROUND ELEVATION (FT):	5976.36	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749127.65	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	08891
EAST:	2085866.39	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/05/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 13.1 FT. - 10.0 FT. BACKFILL MATERIAL: BENTONITE 30.3 FT. - 27.3 FT.

* = GRAIN SIZE DISTRIBUTION AND DESCRIPTION ESTIMATED

CHEMICAL SAMP/ GRADATIONAL S.	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
										Top soil, start of boring at 0.90 ft.
				0.90 /2.00	5976 5975	0 1			GC	Sandy Gravel with some clay and silt * - dusky brown (5YR2/2), maximum gravel diameter .16', average .07', fine- to coarse-grained sand, well graded, gravel is angular to well rounded (some nearly spherical cobbles), sand is angular to well rounded, low plasticity, gravel is primarily quartzite with trace granite, sand contains abundant quartz, carbonaceous/organic material, some rock fragments, feldspar, caliche/calcrete, moist. *65% gravel, 20% sand, 7% silt, 8% clay.
						2				No recovery for this interval.
				1.40 /2.00	5974 5973	3			GC	Sandy Gravel with some clay and silt * - dusky brown (5YR2/2), as described above.
	BH0547MC02								CL /gc	Gravelly Clay with some sand and silt * - very pale orange (10YR8/2) at 2.1-4.0' to moderate yellowish brown (10YR5/4), maximum gravel diameter .14', average .06', fine- to coarse-grained sand, well graded, gravel is rounded, sand is angular to rounded, moderate to high plasticity, gravel is primarily quartzite with a semi-consolidated 14"x 14" cobble of alluvial material at 4.7', sand contains abundant caliche/calcrete, quartz, some rock fragments, irregularly laminated at 3.0-3.2', possible paleo-soil horizon, moist. *25% gravel, 15% sand, 10% silt, 50% clay.
				1.00 /1.00	5972	4				VOA sample obtained from this interval.
	BH0550MC02									No recovery for this interval.
				0.30 /1.00	5971	5			CL /gc	Gravelly Clay with some sand and silt * - very pale orange (10YR8/2), as described above.
									GC	Clayey Gravel with some silt and sand - light brown (5YR6/4) to yellowish gray (5Y7/2), as described below.
										No recovery for this interval.
				0.80 /1.00	5970	6			GC	Clayey Gravel with some silt and sand - light brown (5YR6/4) to yellowish gray (5Y7/2), as described below.
	BH0549MC02 BH0548MC02									VOA sample obtained from this interval.
										No recovery for this interval.
				0.70 /1.00	5969	7			GC	Clayey Gravel with some silt and sand - light brown (5YR6/4) to yellowish gray (5Y7/2) where clasts of silty clay (probably re-worked bedrock) at 7.5-7.7', 8.5-8.7', maximum gravel diameter > .25', average .12', fine- to coarse-grained sand, well graded, gravel is fractured or sub-angular, sand is sub-angular to sub-rounded, moderate plasticity, gravel is primarily quartzite with a very weathered/disagregated diorite (?) clast at 7.0-7.2', sand contains abundant quartz, some rock fragments, feldspar, dark minerals, kaolinized feldspar, trace mica, some petroleum product/manganese oxide at 11.6-11.8', moist to dry. 41% gravel, 11% sand, 15% silt, 33% clay.
					5968	8				
				0.70 /2.00	5967	9				
										No recovery for this interval.
									GC	Clayey Gravel with some silt and sand - light brown (5YR6/4) to yellowish gray (5Y7/2), as described above.
						10				No recovery for this interval.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 30.0	GROUND ELEVATION (FT):	5976.36	PROJECT NUMBER:	002/RI	LOG OF BORING NUMBER:
NORTH:	749127.65	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	08891
EAST:	2085866.39	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/05/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 13.1 FT. - 10.0 FT. BACKFILL MATERIAL: BENTONITE 30.3 FT. - 27.3 FT.

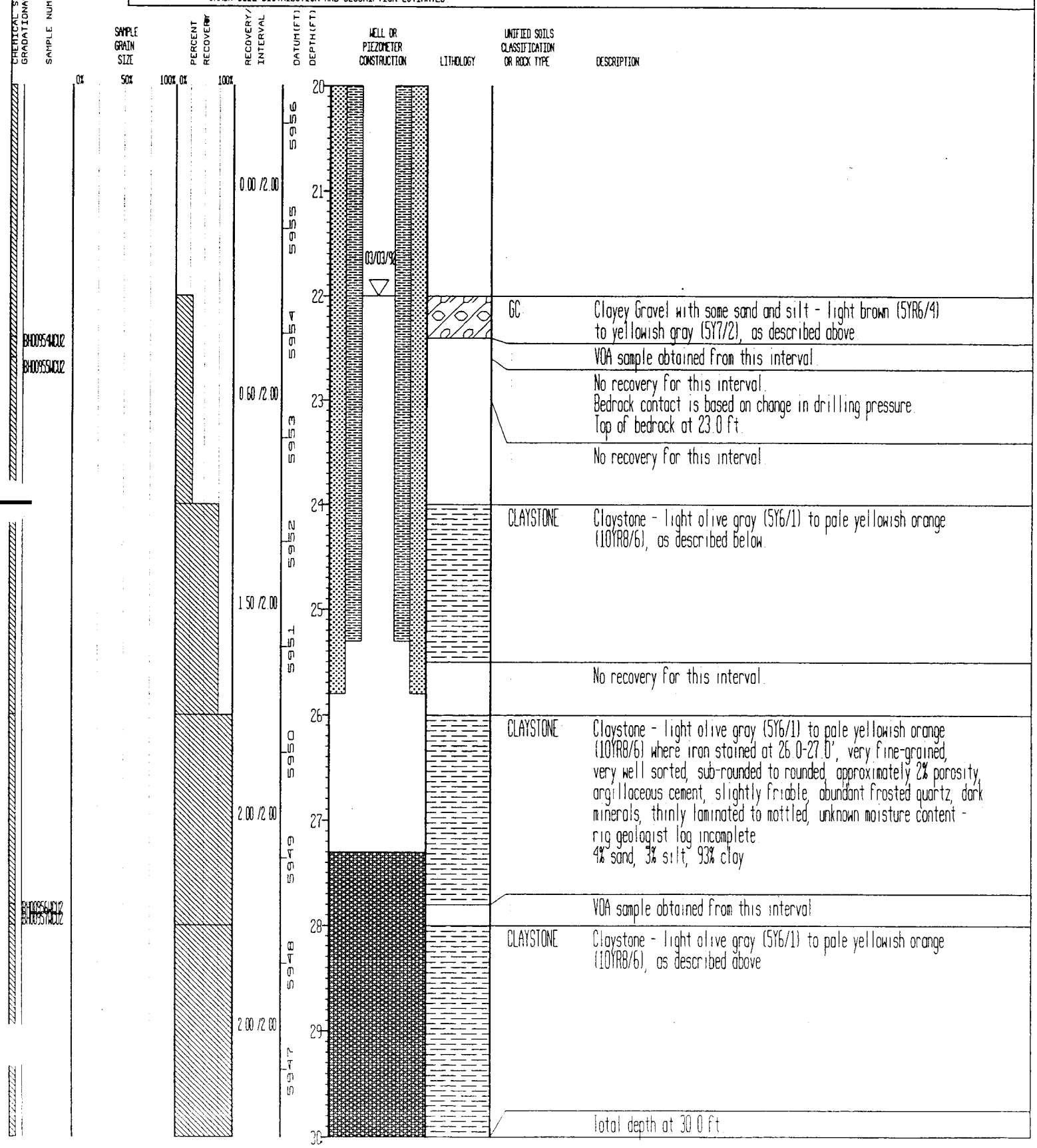
* = GRAIN SIZE DISTRIBUTION AND DESCRIPTION ESTIMATED.

DEPTH	CHEMICAL SAMPL / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% – 50% – 100%)	PERCENT RECOVERY (0% – 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		BH00551WC02 BH00552WC02			0.80 /1.00	5966	10			GC	Clayey Gravel with some silt and sand - light brown (5YR6/4) to yellowish gray (5Y7/2), as described above.
											VOA sample obtained from this interval.
											No recovery for this interval.
					0.80 /1.00	5965	11			GC	Clayey Gravel with some silt and sand - light brown (5YR6/4) to yellowish gray (5Y7/2), as described above.
											No recovery for this interval.
						5964	12			GC	Clayey Gravel withsome silt and sand - light brown (5YR6/4) to yellowish gray (5Y7/2), as described above.
										GC	Clayey Gravel with some sand and silt - light brown (5YR6/4) to yellowish gray (5Y7/2), as described below.
					0.70 /2.00	5963	13				No recovery for this interval.
						5962	14			GC	Clayey Gravel with some sand and silt - light brown (5YR6/4) to yellowish gray (5Y7/2) where concentrations of silty clay (probably re-worked bedrock) at 12.2-14.8', 16.4-16.6', 18.3-18.5', maximum gravel diameter > .25', average .09', fine- to coarse-grained sand, well graded, gravel is fractured to sub-rounded, sand is sub-angular to sub-rounded, moderate to high plasticity, gravel is primarily quartzite with a trace granite, sand contains abundant quartz, some rock fragments, trace feldspar, dark minerals, mica, kaolinized feldspar, dry to moist at 12.2-18.5', dry at 19.5', very wet to saturated at 22.0-22.6' 49% gravel, 11% sand, 9% silt, 31% clay
		BH00551WC02			1.00 /2.00	5961	15				
						5960	16				
											VOA sample obtained from this interval.
											No recovery for this interval.
		BH00552WC02			0.60 /2.00	5959	17			GC	Clayey Gravel with some sand and silt - light brown (5YR6/4) to yellowish gray (5Y7/2), as described above.
											No recovery for this interval.
					0.50 /1.00	5958	18			GC	Clayey Gravel with some sand and silt - light brown (5YR6/4) to yellowish gray (5Y7/2), as described above.
											No recovery for this interval.
		J00553WC02			0.40 /0.50	5957	19			GC	Clayey Gravel with some sand and silt - light brown (5YR6/4) to yellowish gray (5Y7/2), as described above.
					0.00 /0.50						VOA sample obtained from this interval.
							20				No recovery for this interval.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 30.0	GROUND ELEVATION (FT):	5976.36	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749127.65	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	08891
EAST:	2085866.39	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/05/92	

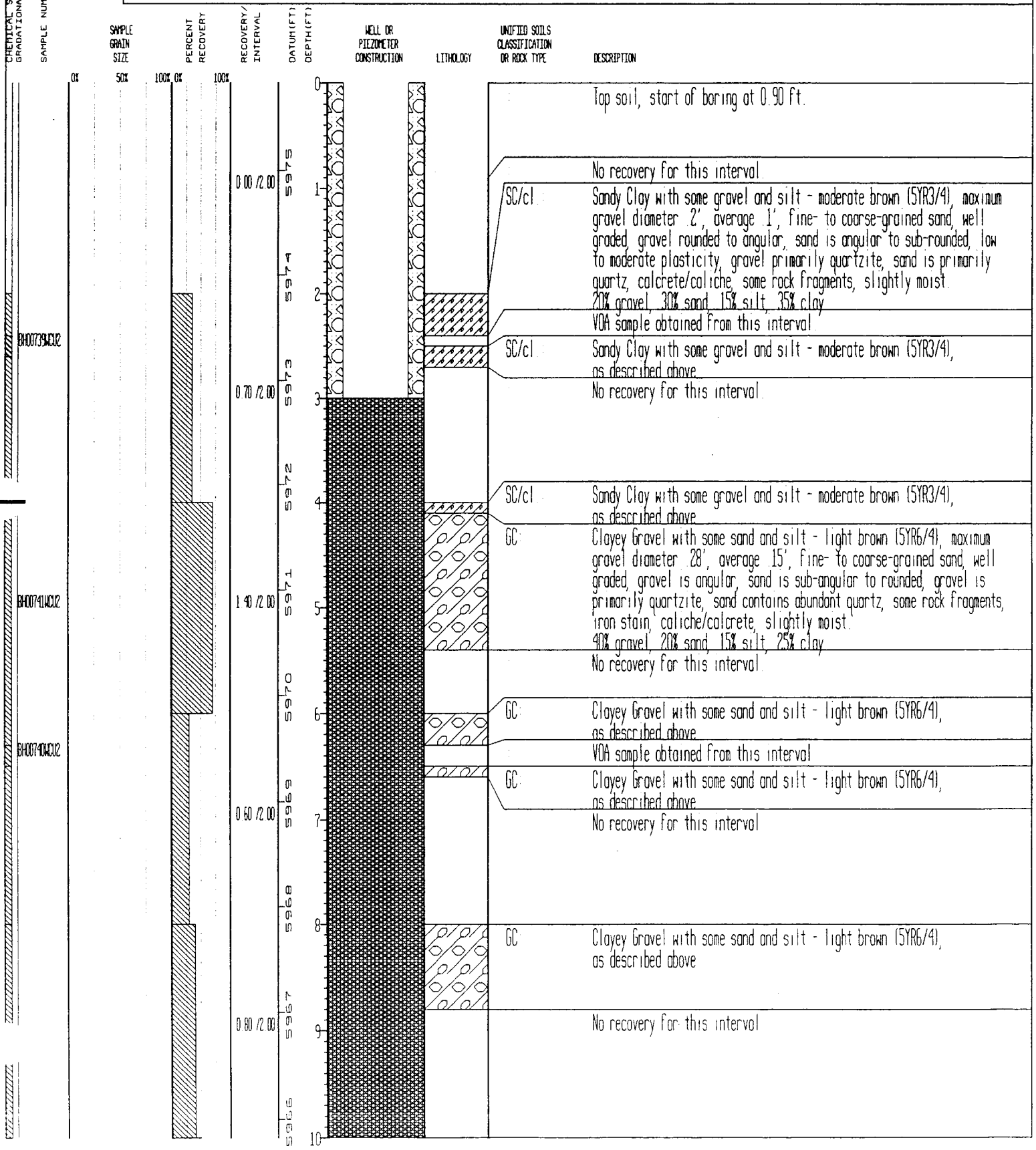
REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 13.1 FT. - 10.0 FT. BACKFILL MATERIAL: BENTONITE 30.3 FT. - 27.3 FT.

* = GRAIN SIZE DISTRIBUTION AND DESCRIPTION ESTIMATED



STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 34.0	GROUND ELEVATION (FT):	5975.83	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 748986.80	AREA: 903 PAD	CASING DIAMETER (IN):		GEOLOGIST:	J.P. O'BRIEN	08991
EAST: 2085863.46	LOCATOR NUMBER: 612	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED	03/11/92	

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 34.0 FT. - 3.0 FT.



STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 34.0	GROUND ELEVATION (FT):	5975.83	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749986.80	AREA: 903 PAD	CASING DIAMETER (IN):		GEOLOGIST:	J.P. O'BRIEN	08991
EAST:	2085863.46	LOCATOR NUMBER: 612	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	03/11/92	

REMARKS: HOLLOW-STEM AUGER BACKFILL MATERIAL: BENTONITE 34.0 FT - 3.0 FT

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%			10			GM	Sandy Gravel with some silt and clay - light brown (5YR5/6), as described below.
	BH00742WC02				5965					VOA sample obtained from this interval.
	BH00743WC02			1.00 /2.00		11			GM	Sandy Gravel with some silt and clay - light brown (5YR5/6), as described below.
										No recovery for this interval.
					5964	12			GM	Sandy Gravel with some silt and clay - light brown (5YR5/6), maximum gravel diameter > .25', average .1', fine- to coarse-grained sand, well graded, angular to sub-rounded, low plasticity, gravel is primarily quartzite, sand contains abundant quartz, some rock fragments, slightly moist at 10.0-16.0', moist at 16.0-19.0' 40% gravel, 35% sand, 15% silt, 10% clay
				0.80 /2.00	5963	13				No recovery for this interval.
					5962	14			GM	Sandy Gravel with some silt and clay - light brown (5YR5/6), as described above.
	BH00744WC02									VOA sample obtained from this interval
				0.80 /2.00	5961	15			GM	Sandy Gravel with some silt and clay - light brown (5YR5/6), as described above.
										No recovery for this interval
					5960	16			GM	Sandy Gravel with some silt and clay - light brown (5YR5/6), as described above
	BH00745WC02			0.90 /2.00	5959	17				No recovery for this interval
					5958	18			GM	Sandy Gravel with some silt and clay - light brown (5YR5/6), as described above
	BH00746WC02									VOA sample obtained from this interval
				1.00 /2.00	5957	19			GM	Sandy Gravel with some silt and clay - light brown (5YR5/6), as described above
										No recovery for this interval
					5956	20				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 34.0	GROUND ELEVATION (FT):	5975.83	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 740986.80	AREA: 903 PAD	CASING DIAMETER (IN):		GEOLOGIST:	J.P. O'BRIEN	08991
EAST: 2085863.46	LOCATOR NUMBER: 612	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	03/11/92	

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 34.0 FT. - 3.0 FT.

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%							
				0.00 /2.00	5955	20, 21				
					5954	22			SC:	Clayey Sand with some gravel and silt - grayish orange pink (5YR7/2), as described below
	BH00750WC02			1.40 /2.00	5953	23				VOA sample obtained from this interval
	BH00749WC02								SC:	Clayey Sand with some gravel and silt - grayish orange pink (5YR7/2), as described below
					5952					No recovery for this interval
						24			SC:	Clayey Sand with some gravel and silt - grayish orange pink (5YR7/2), maximum gravel diameter .25', average .02', fine- to coarse-grained sand, well graded, angular to rounded, low plasiticy, gravel is primarily quartzite, sand contains abundant quartz, some rock fragments, saturated. 15% gravel, 50% sand, 10% silt, 25% clay
				1.20 /2.00	5951	25				No recovery for this interval
					5950	26				
				0.00 /2.00	5949	27				
					5948	28			SC:	Clayey Sand with some gravel and silt - grayish orange pink (5YR7/2), as described above
				1.00 /1.00					SILTY CLAYSTONE:	Silty Claystone with some sand - medium dark gray (N4), as described below
	BH00752WC02				5947	29				
				1.00 /1.00						
	BH00751WC02				5946	30				VOA sample obtained from this interval

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 34.0	GROUND ELEVATION (FT):	5975.83	PROJECT NUMBER:	002/RI
NORTH:	748986.80	AREA: 903 PAD	CASING DIAMETER (IN):		GEOLOGIST:	J.P. O'BRIEN
EAST:	2085863.46	LOCATOR NUMBER: 612	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	03/11/92

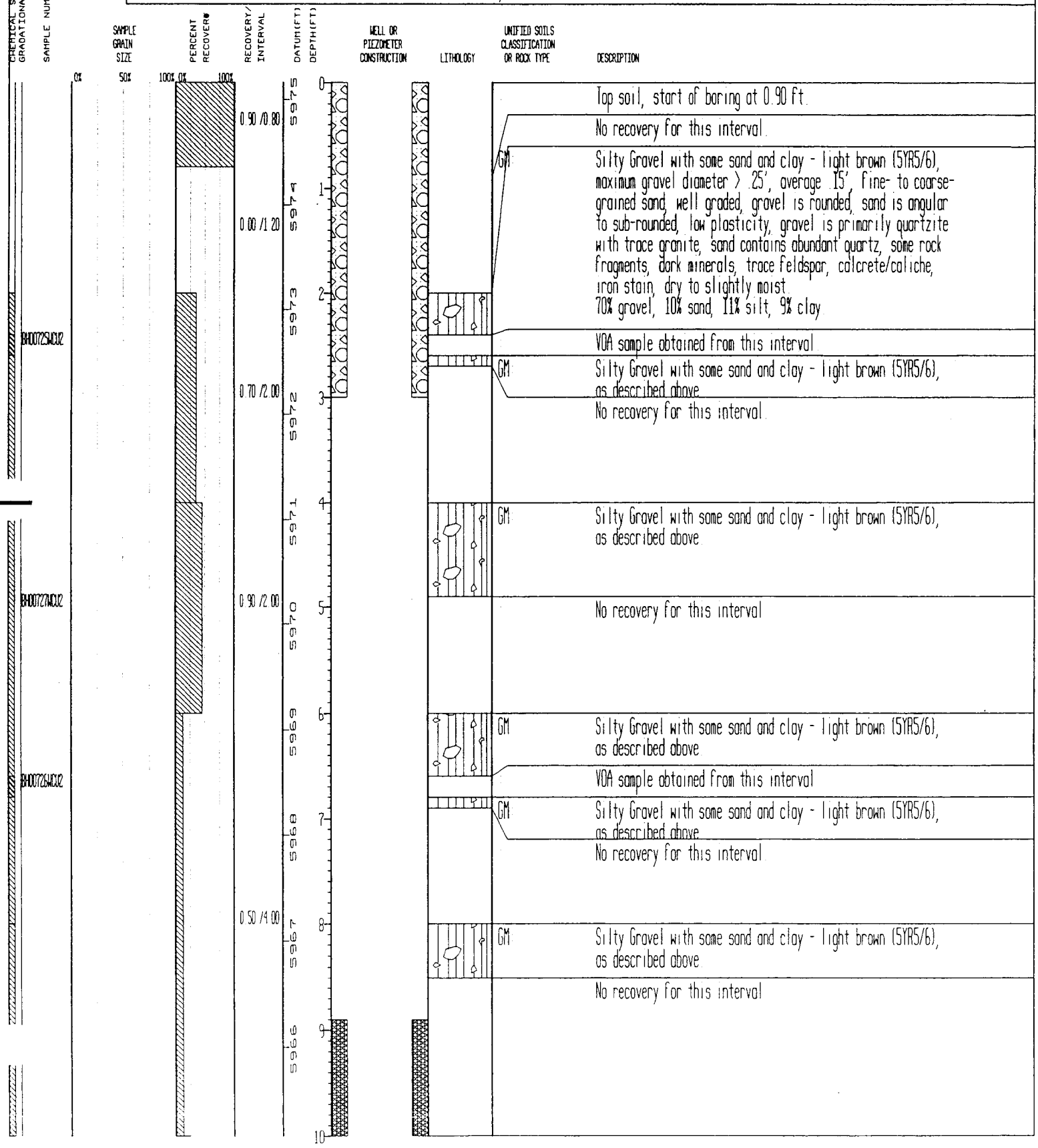
REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 34.0 FT. - 3.0 FT.

LOG OF BORING NUMBER: 08991

CHEMICAL SAMPLE / GRADATIONAL SIZE	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
				2.00 /2.00	5945	30			SILTY CLAYSTONE	Silty Claystone with some sand - medium dark gray (N4) to dark yellowish orange (10YR6/6) where iron stained at 29.0-29.7', 30.4', 31.0-31.7', 32.4', 32.7', very fine-grained, very well sorted, sub-angular, approximately 5% porosity, argillaceous cement, slightly friable, abundant quartz, dark minerals, iron stain, mottled to thinly laminated, slightly moist to wet. 15% sand, 20% silt, 65% clay.
					5944	31				
					5943	32				
	BH00753W02			1.80 /2.00	5942	33				
					5941	34				No recovery for this interval.
					5940	35				Total depth at 34.0 ft
					5939	36				
					5938	37				
					5937	38				
					5936	39				
						40				

STATE PLANE COORDINATE		TOTAL DEPTH (FT): 30.0	GROUND ELEVATION (FT):	5975.16	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	748918.30	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	09091
EAST:	2085943.42	LOCATOR NUMBER: 612	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/03/92	

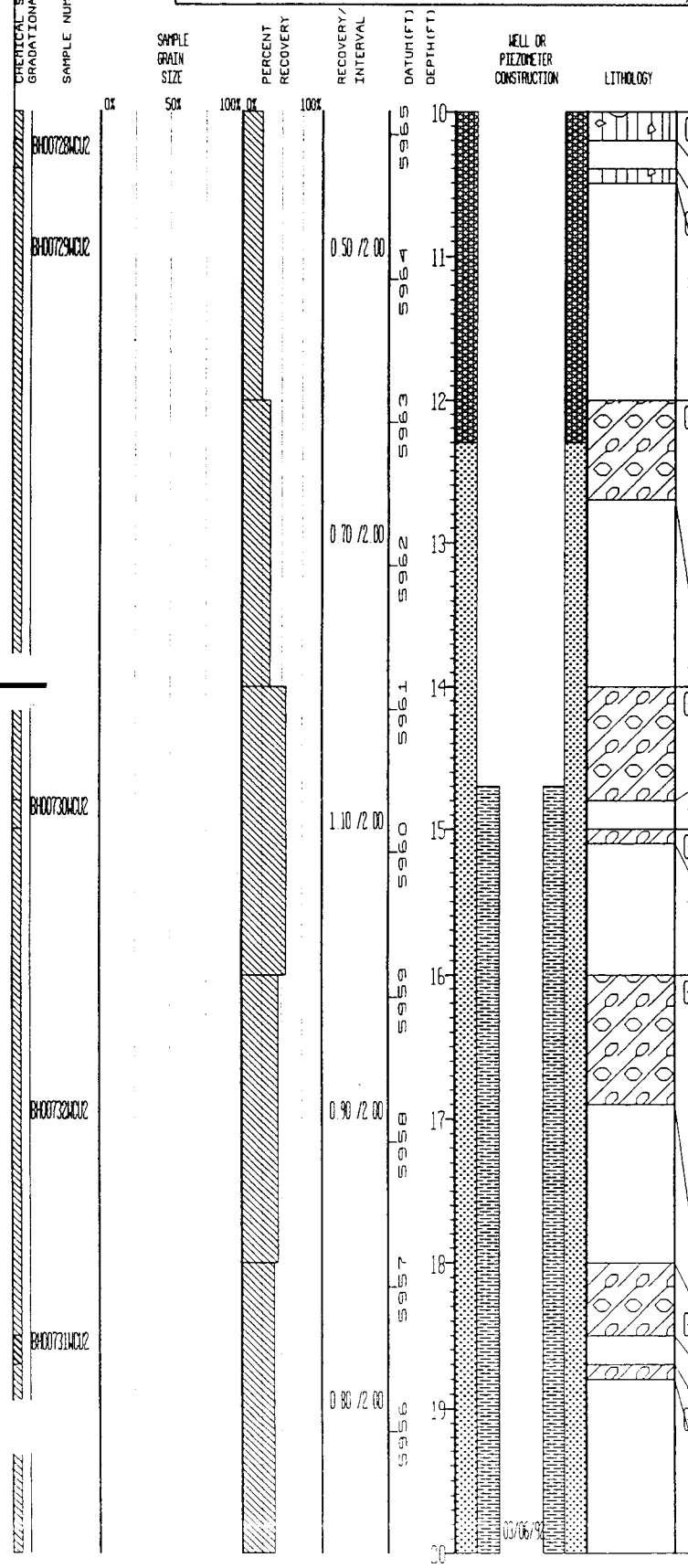
REMARKS: APPROXIMATELY 45% OF CORE WAS RECOVERED. OF THIS 45%, APPROXIMATELY HALF WAS USED FOR COMPOSITE SAMPLING, LEAVING APPROXIMATELY 22% OF THE TOTAL CORE TO CHARACTERIZE THE HOLE GEOLOGICALLY. THEREFORE, RESULTS REPORTED ON THIS LOG ARE TENTATIVE AND SHOULD NOT BE USED FOR GEOLOGICAL CHARACTERIZATION.



STATE PLANE COORDINATE		TOTAL DEPTH (FT): 30.0	GROUND ELEVATION (FT):	5975.16	PROJECT NUMBER:	OU2RI
NORTH:	748918.30	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST:	2085943.42	LOCATOR NUMBER: 612	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/03/92

LOG OF BORING NUMBER: 09091

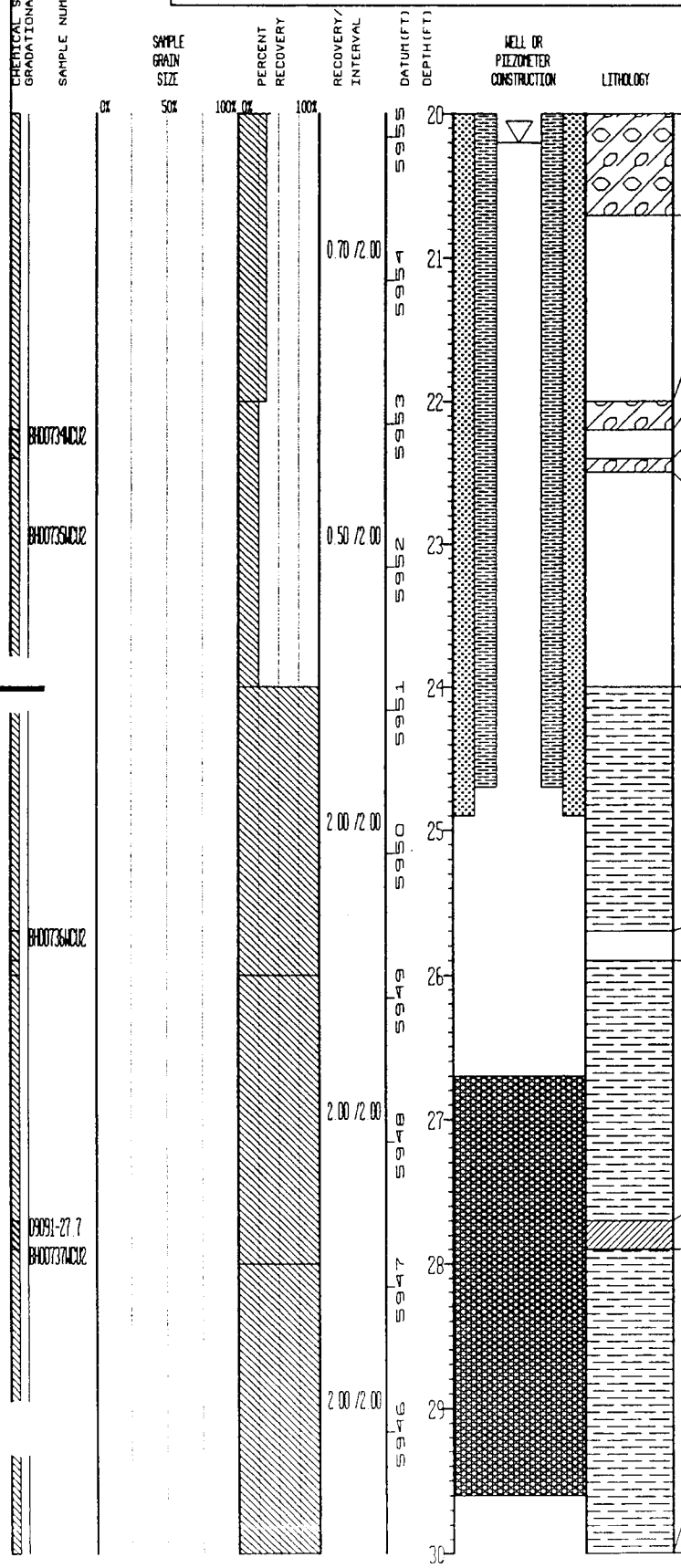
REMARKS: APPROXIMATELY 45% OF CORE WAS RECOVERED. OF THIS 45%, APPROXIMATELY HALF WAS USED FOR COMPOSITE SAMPLING, LEAVING APPROXIMATELY 22% OF THE TOTAL CORE TO CHARACTERIZE THE HOLE GEOLOGICALLY. THEREFORE, RESULTS REPORTED ON THIS LOG ARE TENTATIVE AND SHOULD NOT BE USED FOR GEOLOGICAL CHARACTERIZATION.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
GM	Silty Gravel with some sand and clay - light brown (5YR5/6), as described above.
	VOA sample obtained from this interval.
GM	Silty Gravel with some sand and clay - light brown (5YR5/6), as described above.
	No recovery for this interval.
GC	Sandy Gravel with some clay and silt - light brown (5YR5/6), maximum gravel diameter .21', average .1', fine- to coarse-grained sand, well graded, gravel is rounded, sand is angular to rounded, low plasticity, gravel is primarily quartzite with some granite and schist at 14.4-14.8', sand contains abundant quartz, some rock fragments, trace dark minerals, feldspar, kaolinized feldspar, mica, dry to slightly moist. 55% gravel, 21% sand, 7% silt, 17% clay.
	No recovery for this interval.
GC	Sandy Gravel with some clay and silt - light brown (5YR5/6), as described above.
	VOA sample obtained from this interval.
GC	Clayey Gravel with some sand - moderate brown (5YR4/4), as described above.
	No recovery for this interval.
GC	Clayey Gravel with some sand - moderate brown (5YR4/4), maximum gravel diameter .22', average .15', fine- to coarse-grained sand, poorly graded, gravel is rounded, sand is angular to sub-angular, low plasticity, gravel is primarily quartzite with some siliceous metamorphic rock at 16.1', and pale olive (10Y6/2) sandy clay at 20.0-20.7' and 22.0-22.05', sand contains abundant quartz, some rock fragments, trace iron/limonite stain, feldspar, kaolinized feldspar, muscovite, slightly moist to moist at 15.0-20.0', wet to saturated at 20.0-23.0'. 75% gravel, 10% sand, 4% silt, 11% clay.
	No recovery for this interval.
GC	Clayey Gravel with some sand - moderate brown (5YR4/4), as described above.
	VOA sample obtained from this interval.
GC	Clayey Gravel with some sand - moderate brown (5YR4/4), as described above.
	No recovery for this interval.

STATE PLANE COORDINATE		TOTAL DEPTH (FT): 30.0	GROUND ELEVATION (FT):	5975.16	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	748918.30	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	09091
EAST:	2085943.42	LOCATOR NUMBER: 612	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/03/92	

REMARKS: APPROXIMATELY 45% OF CORE WAS RECOVERED. OF THIS 45%, APPROXIMATELY HALF WAS USED FOR COMPOSITE SAMPLING, LEAVING APPROXIMATELY 22% OF THE TOTAL CORE TO CHARACTERIZE THE HOLE GEOLOGICALLY. THEREFORE, RESULTS REPORTED ON THIS LOG ARE TENTATIVE AND SHOULD NOT BE USED FOR GEOLOGICAL CHARACTERIZATION.

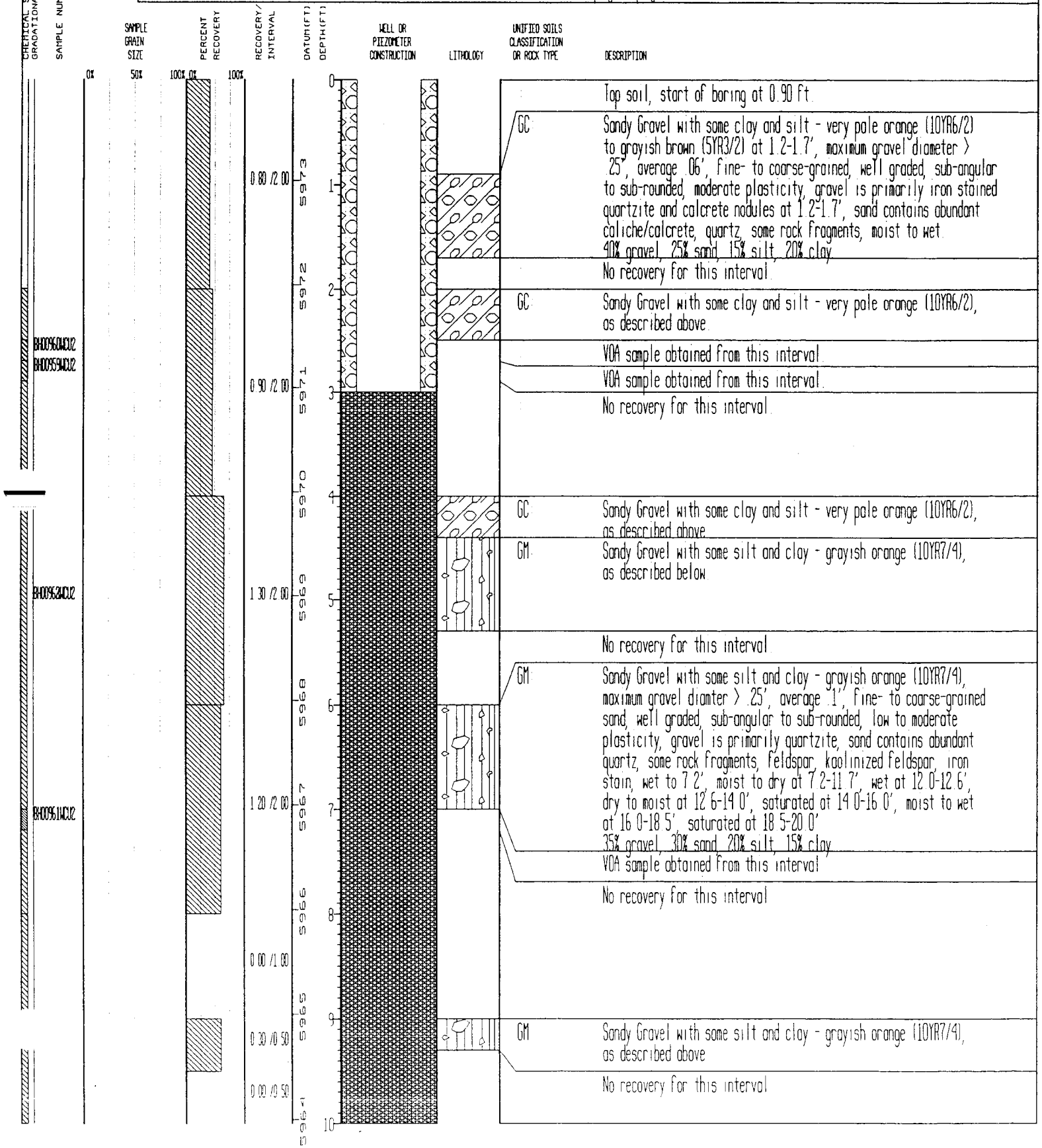


UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
GC	Clayey Gravel with some sand - moderate brown (5YR4/4), as described above.
	No recovery for this interval.
GC	Clayey Gravel sith some sand - moderate brown (5YR4/4), as described above.
	VOA sample obtained from this interval.
GC	Clayey Gravel with some sand - moderate brown (5YR4/4), as described above.
	No recovery for this interval. Note: bedrock contact as per rig geoligist log, no core available at contact (approximately 22.5-24.0'). Top of bedrock at 24.0 ft.
CLAYSTONE	Claystone with some silt - light olive gray (5Y6/1) to dark yellowish orange (10YR6/6) where iron stained (24.1-24.3', 28.2-29.2'), very fine-grained, very well sorted, sub-rounded to rounded, approximately 2% porosity, argillaceous cement, slightly friable, abundant frosted quartz, trace dark minerals, mottled, carbonaceous material at 25.6', 26.8', some iron stain throughout, 45 degree fractures at 26.9', 29.7-29.9', slightly moist. 5% sand, 6% silt, 89% clay.
	VOA sample obtained from this interval.
CLAYSTONE	Claystone with some silt - light olive gray (5Y6/1) to dark yellowish orange (10YR6/6), as described above.
	GEOTECH sample obtained from this interval.
CLAYSTONE	Claystone wiht some silt - light olive gray (5Y6/1) to dark yellowish orange (10YR6/6), as described above.
	Total depth at 30.0 ft.

STATE PLANE COORDINATE		TOTAL DEPTH (FT): 30.0	GROUND ELEVATION (FT): 5973.96	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:
NORTH:	749125.96	AREA: 903 PAD	CASING DIAMETER (IN):	GEOLOGIST: J.P. O'BRIEN	09191
EAST:	2085962.27	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 03/11/92	

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 30.0 FT. - 0.0 FT

GRAIN SIZE DISTRIBUTION AND DESCRIPTIONS ESTIMATED. RAD SCREEN RESULTS OVER 50 pi/g (65 pi/g).



STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 30.0	GROUND ELEVATION (FT):	5973.96	PROJECT NUMBER:	002/RI	LOG OF BORING NUMBER:
NORTH:	749125.96	AREA: 903 PAD	CASING DIAMETER (IN):		GEOLOGIST:	J.P. O'BRIEN	09191
EAST:	2085962.27	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	03/11/92	

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 30.0 FT. - 0.0 FT.
GRAIN SIZE DISTRIBUTION AND DESCRIPTIONS ESTIMATED. RAD SCREEN RESULTS OVER 50 pi/g (65 pi/g).

DEPTH	CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					0.00 /1.00	5963	10				
		BH00963WD02					11			GM	Sandy Gravel with some silt and clay - grayish orange (10YR7/4), as described above.
		BH00964WD02			0.70 /1.00						VOA sample obtained from this interval.
						5962					No recovery for this interval.
							12			GM	Sandy Gravel with some silt and clay - grayish orange (10YR7/4), as described above.
					1.10 /2.00	5961	13				
											No recovery for this interval.
						5960	14			GM	Sandy Gravel with some silt and clay - grayish orange (10YR7/4), as described above.
					0.30 /1.00						No recovery for this interval.
						5959	15			GM	Sandy Gravel with some silt and clay - grayish orange (10YR7/4), as described above.
					1.00 /1.00						VOA sample obtained from this interval.
		BH00967WD02				5958	16			GM	Sandy Gravel with some silt and clay - grayish orange (10YR7/4), as described above.
					0.80 /1.00						No recovery for this interval.
		BH00969WD02				5957	17			GM	Sandy Gravel with some silt and clay - grayish orange (10YR7/4), as described above.
					0.80 /1.00						No recovery for this interval.
						5956	18				
		BH00968WD02			0.40 /0.50						VOA sample obtained from this interval.
		BH00970WD02									VOA sample obtained from this interval.
					0.60 /1.00	5955	19			GM	Sandy Gravel with some silt and clay - grayish orange (10YR7/4), as described above.
						5954	20				No recovery for this interval.

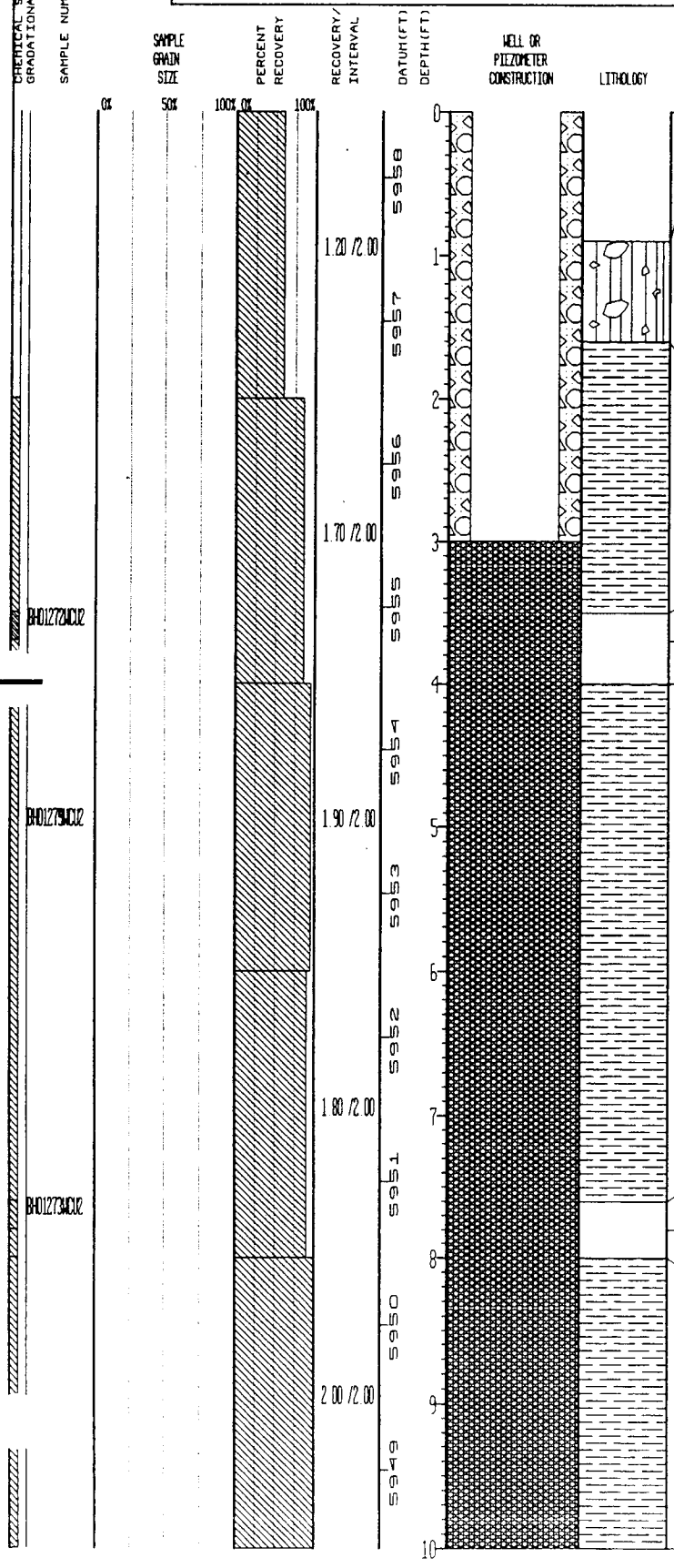
STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 30.0	GROUND ELEVATION (FT):	5973.96	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 749125.96	AREA: 903 PAD	CASING DIAMETER (IN):		GEOLOGIST:	J.P. O'BRIEN	09191
EAST: 2085962.27	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	03/11/92	

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 30.0 FT. - 0.0 FT.
GRAIN SIZE DISTRIBUTION AND DESCRIPTIONS ESTIMATED. RAD SCREEN RESULTS OVER 50 pi/g (65 pi/g)

DEPTH (FT)	CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					0.00 /2.50	5953	20, 21				
						5952	22			SC	Gravelly Sand with some clay and silt - moderate yellowish brown (10YR5/4), maximum gravel diameter .08', average .04', fine- to coarse-grained sand, well graded, sub-angular, moderate plasticity, gravel is primarily quartzite, sand contains abundant quartz, rock fragments, some iron stain and nodules, soupy appearance, iron nodules seemed to have precipitated upon drying, saturated. 30% gravel, 40% sand, 10% silt, 20% clay
					2.00 /2.00	5951	23				
											VOA sample obtained from this interval. Top of bedrock at 24.0 ft
		B00974D12 B0097SC02				5950	24			CLAYSTONE	Claystone with some silt - olive gray (5Y4/1) to grayish orange (10YR7/4), very fine-grained, very well sorted, sub-angular, approximately 4% porosity, argillaceous cement, slightly friable, abundant frosted quartz, dark minerals, iron stained at 28.3-30.0', abundant carbonaceous fragments at 29.8-30.0', mottled to thinly laminated, moist. 4% sand, 6% silt, 90% clay.
					2.00 /2.00	5949	25				
						5948	26				
					2.00 /2.00	5947	27				
		B00974D12 B0097SC02				5946	28				VOA sample obtained from this interval.
										CLAYSTONE	Claystone with some silt - olive gray (5Y4/1) to grayish orange (10YR7/4), as described above
					2.00 /2.00	5945	29				
						5944	30				Total depth at 30.0 ft

STATE PLANE COORDINATE		TOTAL DEPTH (FT): 56.0	GROUND ELEVATION (FT):	5958.46	PROJECT NUMBER:	002/RI	LOG OF BORING NUMBER:
NORTH:	749611.01	AREA: 903 PAD	CASING DIAMETER (IN):		GEOLOGIST:	J.P. O'BRIEN	09291
EAST:	2085770.05	LOCATOR NUMBER: 612	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	03/12/92	

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 56.0 FT. - 3.0 FT.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	Top soil, start of boring at 0.90 ft.
GM	Sandy Gravel with some silt and clay - dusky brown (5YR2/2), maximum gravel diameter .2', average .1', fine- to coarse-grained sand, well graded, angular to sub-rounded, low plasticity, gravel is primarily quartzite with some granite at 1.5', sand contains abundant carbonaceous/organic material, quartz, some rock fragments, feldspar, calcrete/caliche, trace mica, saturated. 38% gravel, 23% sand, 23% silt, 16% clay. Top of bedrock at 1.6 ft.
CLAYSTONE	Claystone with some silt - light olive gray (5Y6/1), as described below.
	VOA sample obtained from this interval.
	No recovery for this interval.
CLAYSTONE	Claystone with some silt - light olive gray (5Y6/1) at 1.6-5.0', medium gray (N5) to dark yellowish orange (10YR6/6) where iron stained at 5.5-6.2', 6.4-7.8', very fine-grained, very well sorted, sub-rounded to rounded, approximately 2% porosity, argillaceous and calcite cement, slightly friable, abundant frosted quartz, dark minerals, some caliche at 4.3', 4.4', 4.8', .08'x.03' caliche nodule at 5.9', 80 to 90 degree iron stained fractures with manganese oxide at 6.8-7.8', moist to wet. 4% sand, 5% silt, 91% clay.
	VOA sample obtained from this interval.
	No recovery for this interval.
CLAYSTONE	Claystone with some silt - light olive gray (5Y5/2) to olive gray (5Y4/1), dark yellowish orange (10YR6/6) where iron stained, very fine-grained, very well sorted, rounded, approximately 2% porosity, argillaceous and calcite cement, non-friable, abundant frosted quartz, 70 degree iron stained fracture at 8.2-8.4', 80 and 90 degree fractures at 10.8-11.8', 90 degree fracture at 13.8', 15.6', 70 degree iron stained fracture at 17.2-17.5', iron stain and nodules at 18.4', iron stain at 20.7', iron nodules and stained 60 degree fractures at 22.4-22.8' heavy iron stain at 25.6-25.8', 26.4', iron and manganese

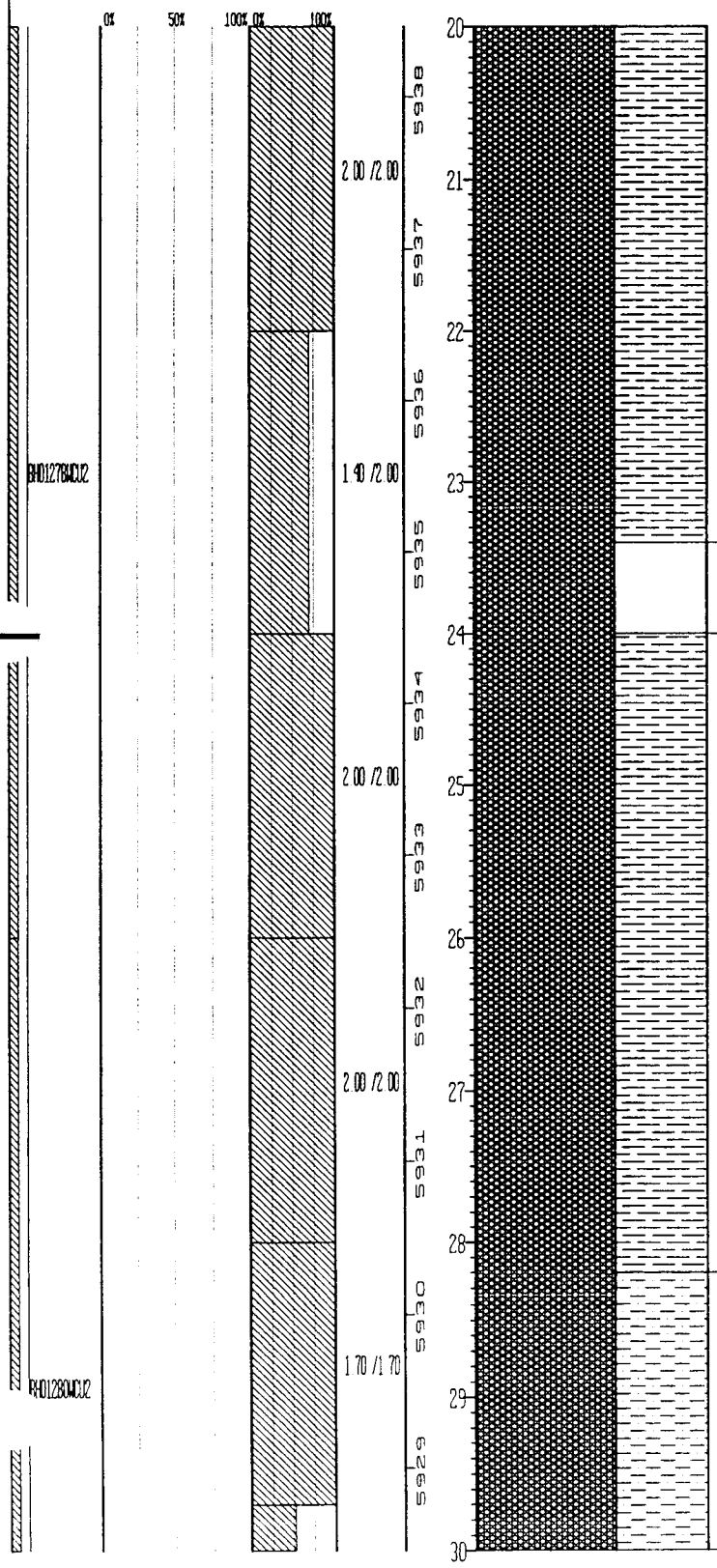
STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 56.0	GROUND ELEVATION (FT):	5958.46	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 748611.01	AREA: 903 PAD	CASING DIAMETER (IN):		GEOLOGIST:	J.P. O'BRIEN	09291
EAST: 2085770.05	LOCATOR NUMBER: 612	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	03/12/92	

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 56.0 FT. - 3.0 FT.

DEPTH	CHEMICAL SAMPLE / GRADATIONAL S/	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			0% 50%	100% 0% 100%							
		BH01276WD02			2.00 /2.00	5948	10				oxide along 40 degree fracture at 25.8-25.9', iron stained 50 degree fracture at 27.0-27.3', horizontal fracture with iron stain at 27.4-27.9', moist to dry. 3% sand, 5% silt, 92% clay.
					2.00 /2.00	5947	11				
						5946	12				
					2.00 /2.00	5945	13				
						5944	14				
					0.00 /2.00	5943	15				No recovery for this interval
						5942	16			CLAYSTONE	Claystone with some silt - light olive gray (5Y5/2) to olive gray (5Y4/1), dark yellowish orange (10YR6/6) where iron stained, as described above.
		BH01277WD02			0.00 /2.00	5941	17				
						5940	18				
					0.00 /2.00	5939	19				
							20				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 56.0	GROUND ELEVATION (FT): 5958.46	PROJECT NUMBER: 002/RI	LOG OF BORING NUMBER:
NORTH: 748611.01	AREA: 903 PAD	CASING DIAMETER (IN):	GEOLOGIST: J.P. O'BRIEN	09291
EAST: 2085770.05	LOCATOR NUMBER: 612	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 03/12/92	

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 56.0 FT. - 3.0 FT.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	No recovery for this interval.
CLAYSTONE	Claystone with some silt - light olive gray (5Y5/2) to olive gray (5Y4/1), dark yellowish orange (10YR6/6) where iron stained, as described above
SANDY CLAYSTONE	Sandy Claystone with some silt - light olive gray (5Y6/1) to medium dark gray (N5), dark yellowish orange (10YR6/6) where iron stained, very fine-grained, very well sorted, rounded, approximately 3% porosity, argillaceous cement, moderately friable, abundant frosted quartz, some dark minerals, trace mica, iron/limonite stain, iron stain at 28.5-28.7', 10 degree iron stained fracture at 29.0', increased sand content at 28.2-28.6', 29.3-30.1', thin bed of sand at 29.7-31.1', possible paleo soil horizon at 30.2', clay rip-up

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 56.0	GROUND ELEVATION (FT): 5958.46	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:
NORTH: 748611.01	AREA: 903 PAD	CASING DIAMETER (IN):	GEOLOGIST: J.P. O'BRIEN	09291
EAST: 2085770.05	LOCATOR NUMBER: 612	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 03/12/92	

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 56.0 FT - 3.0 FT.

CHEMICAL SAMPT / GRADATIONAL S/	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%			30				clasts at 30.2-30.4', iron stain and nodules at 30.4-30.9', 32.6-32.7', mottled, moist to dry. 13% sand, 13% silt, 74% clay.
				1.20 /2.30	5928	31				
					5927	32				
				1.50 /2.00	5926	33			CLAYSTONE:	Claystone with some silt - dark gray (N3) to dark yellowish orange (10YR6/6) where iron stained at 32.9', 33.0-33.1', 34.1', 34.6', 35.0', very fine-grained, very well sorted, rounded, approximately 2% porosity, argillaceous cement, moderately to non-friable, abundant frosted quartz, dark minerals, trace mica, iron stain and nodules at 33.3', iron stain along 40 degree fracture at 35.8-36.0', very carbon rich at 38.7-42.0', mottled to thinly laminated, moist to dry. 3% sand, 10% silt, 87% clay.
					5925	34				
					5924					No recovery for this interval.
	BH01281WC02			2.00 /2.00	5923	35			CLAYSTONE:	Claystone with some silt - dark gray (N3) to dark yellowish orange (10YR6/6) where iron stained, as described above
					5922	36				
				2.00 /2.00	5921	37				
					5920	38				
				2.00 /2.00	5919	39				
						40				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 56.0	GROUND ELEVATION (FT): 5958.46	PROJECT NUMBER: 002/RI	LOG OF BORING NUMBER:	
NORTH: 748611.01	AREA: 903 PAD	CASING DIAMETER (IN):	GEOLOGIST: J.P. O'BRIEN	09291	
EAST: 2085770.05	LOCATOR NUMBER: 612	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 03/12/92		

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 56.0 FT. - 3.0 FT.

DEPTH	CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		BH01283W02			2.00 /2.00	5918	40				
						5917	41				
						5916	42				
					1.70 /1.90	5915	43				
											No recovery for this interval
						5914	44			CLAYSTONE	Claystone with some silt - dark gray (N3) to dark yellowish orange (10YR6/6) where iron stained, as described above
					2.10 /2.10	5913	45				
						5912	46				
		BH01284W02			2.00 /2.00	5911	47				
						5910	48				
					2.00 /2.00	5909	49			SILTY CLAYSTONE	Silty Claystone with some sand - light olive gray (5Y6/1), very fine- to fine-grained, well sorted, sub-rounded to rounded, approximately 4% porosity, argillaceous cement, moderately friable, abundant frosted quartz, dark minerals, mottled to thinly laminated, moist to dry 9% sand, 14% silt, 77% clay
							50				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 56.0	GROUND ELEVATION (FT):	5958.46	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 748611.01	AREA: 903 PAD	CASING DIAMETER (IN):		GEOLOGIST:	J.P. O'BRIEN	09291
EAST: 2085770.05	LOCATOR NUMBER: 612	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	03/12/92	

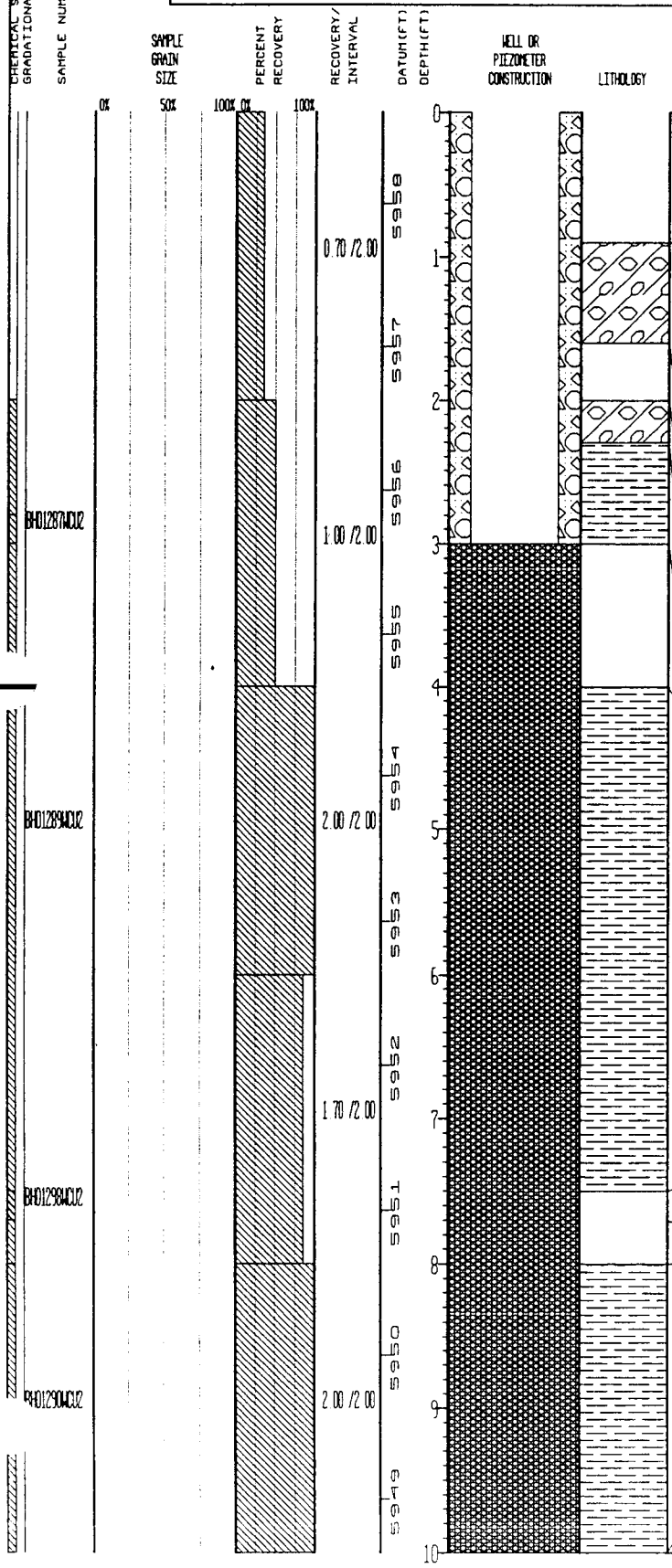
REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 56.0 FT. - 3.0 FT.

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	BH01295W002	0% 50% 100%	0% 100%	1.90 /2.00	5908	50				
					5907	51				
				2.00 /2.00	5906	52				
					5905	53				
				2.00 /2.00	5904	54				
					5903	55				
					5902	56				Total depth at 56.0 ft.
					5901	57				
					5900	58				
					5899	59				
						60				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 10.0	GROUND ELEVATION (FT):	5958.63	PROJECT NUMBER:	002/RI	LOG OF BORING NUMBER:
NORTH:	748531.23	AREA: 903 PAD	CASING DIAMETER (IN):		GEOLOGIST:	J.P. O'BRIEN	09391
EAST:	2085649.59	LOCATOR NUMBER: 612	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	03/17/92	

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 10.0 FT. - 3.0 FT.

* = GRAIN SIZE DISTRIBUTION AND DESCRIPTION ESTIMATED.

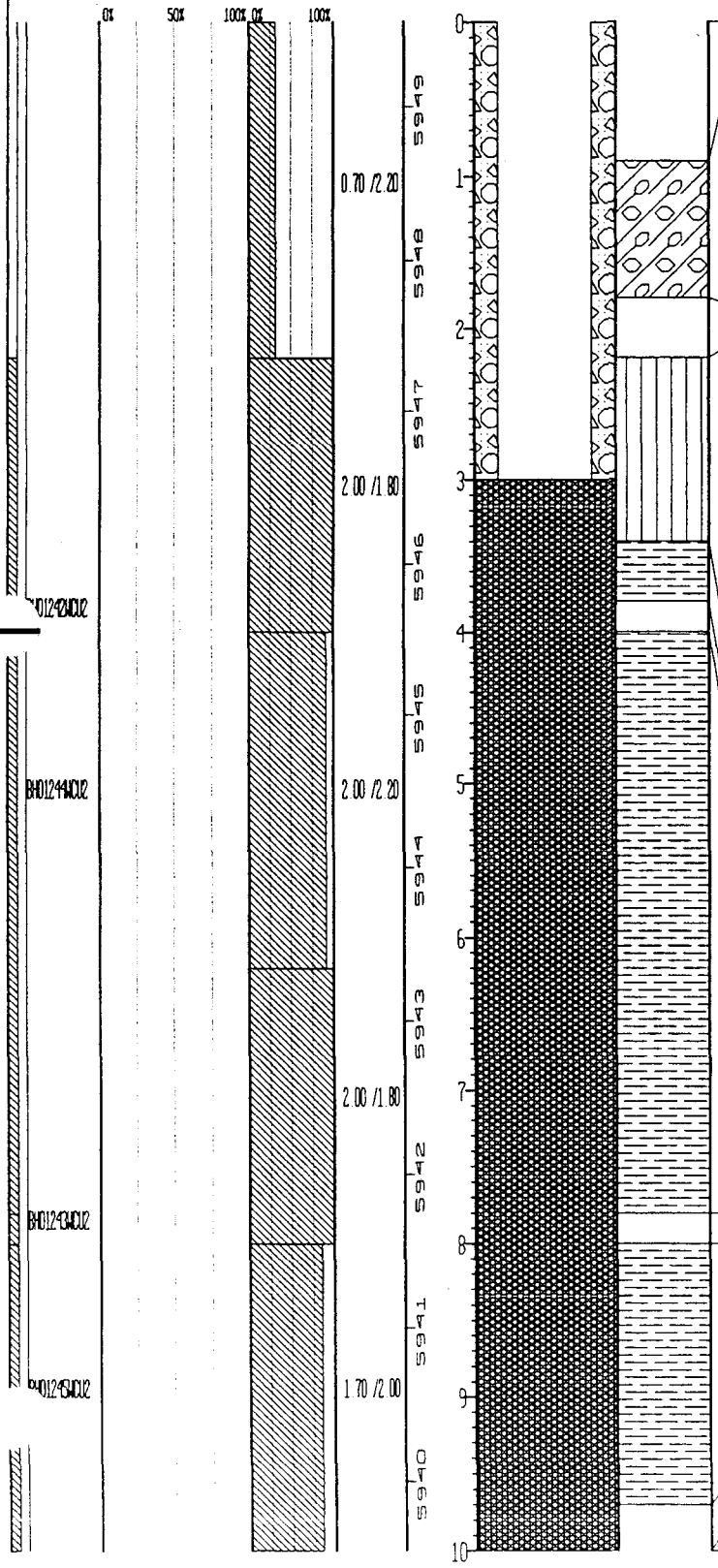


UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	Top soil, start of boring at 0.90 ft.
GC:	Clayey Gravel with some sand and silt - grayish brown (5YR3/2), maximum gravel diameter > .25', average .05', fine- to coarse-grained sand, well graded, gravel is rounded, sand is angular to sub-rounded, moderate plasticity, gravel is primarily quartzite with some granite at 2.1-2.3', and some clear quartzite, sand contains abundant carbonaceous/ organic material, quartz, some rock fragments, feldspar, kaolinized feldspar, trace mica, contact with underlying bedrock sharp with gravel imbricated and loaded into bedrock, saturated. *35% gravel, 20% sand, 15% silt, 30% clay
	No recovery for this interval.
GC:	Clayey Gravel with some sand and silt * - grayish brown (5YR3/2), as described above. Top of bedrock at 2.3 ft.
CLAYSTONE:	Claystone with some silt - light olive gray (5Y6/1) to dark yellowish orange (10YR6/6), as described below.
	No recovery for this interval.
CLAYSTONE:	Claystone with some silt - light olive gray (5Y6/1) to dark yellowish orange (10YR6/6) where iron stained at 4.1-5.0', 6.0-6.2', 8.0-8.4', 8.7-9.0', 9.4-9.6', very fine-grained, very well sorted, sub-rounded to rounded, approximately 3% porosity, argillaceous cement, slightly friable, abundant frosted quratz, some dark minerals, some fine-grained caliche nodules at 2.3-4.6', mottled to faintly laminated, iron stain discordent except at 5.2' where sub-horizontal to bedding, micro fractures suggest secondary solution throughout - "weathered", moist to dry. 4% sand, 10% silt, 86% clay.
	VOA sample obtained from this interval
	No recovery for this interval.
CLAYSTONE:	Claystone with some silt - light olive gray (5Y6/1) to dark yellowish orange (10YR6/6), as described above
	Total depth at 10.0 ft

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 10.0	GROUND ELEVATION (FT): 5949.55	PROJECT NUMBER: 002/RI	LOG OF BORING NUMBER:
NORTH: 748604.80	AREA: 903 PAD	CASING DIAMETER (IN):	GEOLOGIST: J.P. O'BRIEN	09491
EAST: 2085899.32	LOCATOR NUMBER: 612	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 02/28/92	

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 10.0 FT. - 3.0 FT.

* = GRAIN SIZE DISTRIBUTION AND DESCRIPTION ESTIMATED.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	Top soil, start of boring at 0.90 ft.
GC	Sandy Gravel with some clay and silt * - dusky brown (5YR2/2), maximum gravel diameter .18', average .05', fine- to coarse-grained sand, well graded, sub-angular to sub-rounded, moderate plasticity, gravel is primarily quartzite with trace granite at 1.7' and calcrete at 1.5-1.8', sand contains abundant organic/carbonaceous material, quartz, some calcrete/caliche, rock fragments, calcrete/caliche nodules and laminea at 1.5-1.8', moist. *40% gravel, 25% sand, 10% silt, 25% clay.
	No recovery for this interval.
ML/sm	Sandy Silt with some clay and gravel - moderate brown (5YR4/4), maximum gravel diameter .13', average .08', fine- to coarse-grained sand, well graded, gravel is fractured or sub-angular, sand is sub-angular to rounded, low plasticity, gravel is primarily quartzite with trace granite at 2.5', and clear quartzite at 2.4', sand contains abundant quartz, some rock fragments, kaolinized feldspar, dark minerals, feldspar, trace mica, contact with bedrock sharp and undulating (i.e. ripple?), .15' wavelength x .02' amplitude, rounded gravel imbricated and loaded into bedrock, moist. 11% gravel, 31% sand, 40% silt, 18% clay. Top of bedrock at 3.4 ft.
CLAYSTONE	Claystone with some silt - light olive gray (5Y5/2) to dark yellowish orange (10YR6/6) where iron stained, as described above.
	VOA sample obtained from this interval.
CLAYSTONE	Claystone with some silt - light olive gray (5Y5/2) to dark yellowish orange (10YR6/6) where iron stained at 4.1-4.5', 7.2-7.5', 9.3-9.7', very fine-grained, very well sorted, rounded, approximately 2% porosity, argillaceous cement, non- to slightly friable, abundant frosted quartz, dark minerals, iron nodules at 7.2-7.7', carbonaceous material at 8.1-8.3', trace iron stain along faint laminea at 9.3-9.7', secondary solution fractures with dendritic pattern, "weathered" to 9.3', moist to dry. 5% sand, 10% silt, 85% clay.
	VOA sample obtained from this interval.
CLAYSTONE	Claystone with some silt - light olive gray (5Y5/2) to dark yellowish orange (10YR6/6) where iron stained, as described above.
	No recovery for this interval.
	Total depth at 10.0 ft.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 14.0	GROUND ELEVATION (FT):	5953.02	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	748473.69	AREA: 903 PAD	CASING DIAMETER (IN):		GEOLOGIST:	J.P. O'BRIEN	09591
EAST:	2085632.27	LOCATOR NUMBER: G12	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	03/17/92	

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 14.0 FT. - 3.0 FT.

* = GRAIN SIZE DISTRIBUTION AND DESCRIPTION ESTIMATED.

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% – 50% – 100%)	PERCENT RECOVERY (0% – 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
										Top soil, start of boring at 0.90 ft.
				1.00 /2.10	5952	1			CL./sc:	Sandy Clay with some silt and gravel * - grayish brown (5YR3/2), maximum gravel diameter .1', average .03', fine- to medium-grained sand, poorly graded, sub-angular to sub-rounded, moderate plasticity, gravel is primarily quartzite, sand contains abundant carbonaceous organic material, quartz, some rock fragments, roots at 1.7', crudely stratified at 1.7-2.9', wet. *10% gravel, 30% sand, 25% silt, 40% clay.
					5951	2			ML:	Clayey Silt with some sand and gravel - moderate brown (5YR4/4), maximum gravel diameter .04', average .02', fine- to medium-grained sand, well graded, angular to rounded, low to moderate plasticity, gravel is primarily quartzite, sand contains abundant quartz, some rock fragments, feldspar, kaolinized feldspar, dark minerals, trace mica, moist to wet. 12% gravel, 13% sand, 41% silt, 34% clay.
				0.90 /1.90	5950	3				No recovery for this interval.
					5949	4			GC:	Clayey Gravel with some sand and silt - light brown (5YR5/6), as described below.
				0.50 /0.90						No recovery for this interval
	BH01293AC02			0.80 /0.80	5948	5			GC:	Clayey Gravel with some sand and silt - light brown (5YR5/6), maximum gravel diameter > .25', average .15', fine- to coarse-grained sand, well graded, gravel is fractured or rounded, sand is sub-angular to sub-rounded, moderate plasticity, gravel is primarily quartzite, sand contains abundant quartz, some rock fragments, feldspar, dark minerals, trace kaolinized feldspar, mica, moist. 53% gravel, 14% sand, 14% silt, 19% clay.
					5947	6				No recovery for this interval
				0.00 /2.30	5946	7				
					5945	8				No recovery for this interval
				0.00 /2.00	5944	9				
						10				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 14.0	GROUND ELEVATION (FT): 5953.02	PROJECT NUMBER: 002/RI	LOG OF BORING NUMBER:	
NORTH: 749473.69	AREA: 903 PAD	CASING DIAMETER (IN):	GEOLOGIST: J.P. O'BRIEN	09591	
EAST: 2085632.27	LOCATOR NUMBER: 612	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 03/17/92		

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 14.0 FT. - 3.0 FT.

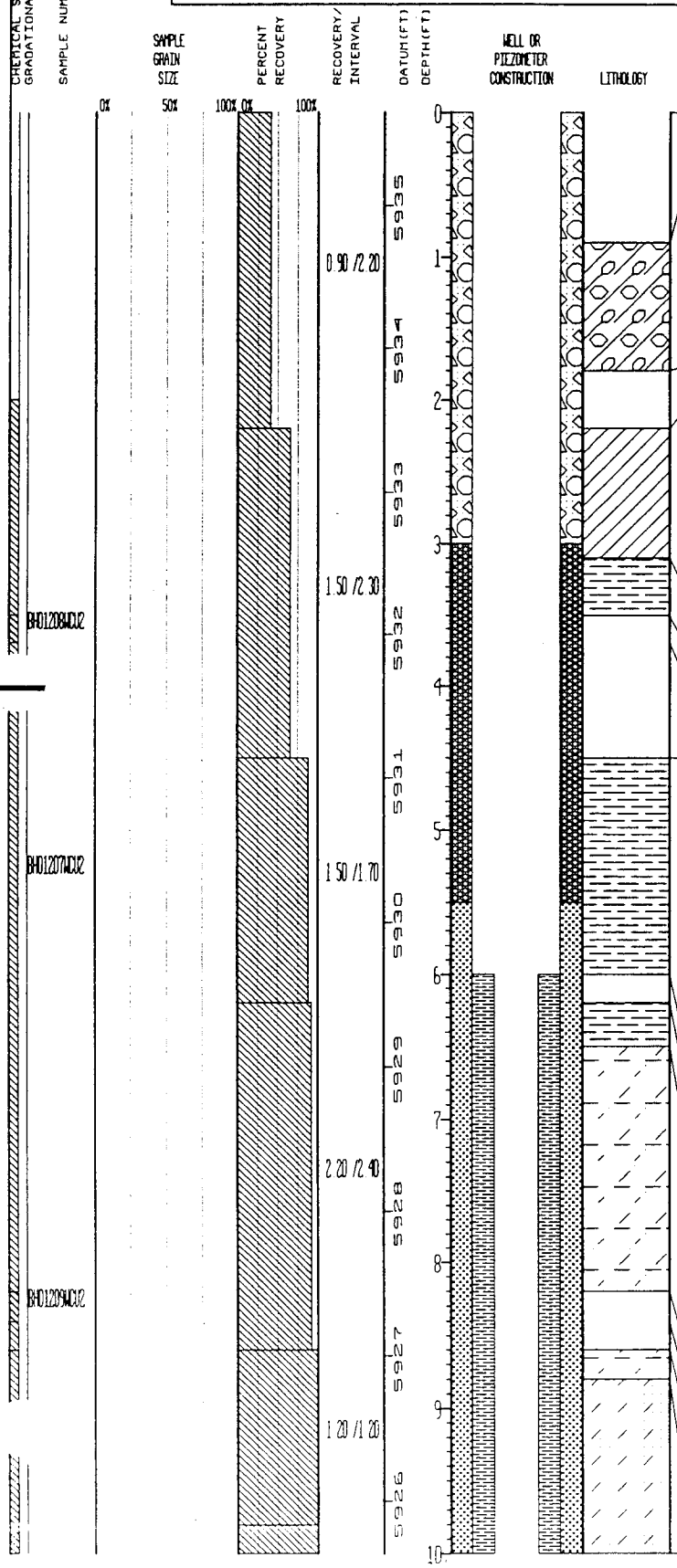
* = GRAIN SIZE DISTRIBUTION AND DESCRIPTION ESTIMATED.

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					5943	10				
				0.00 /2.00	5942	11				
					5941	12			CL	Sandy Clay with some silt and gravel - light olive gray (5Y6/1) to olive gray (5Y4/1), maximum gravel diameter .08', average .03', fine- to coarse-grained sand, poorly graded, gravel is rounded, sand is angular to rounded, high plasticity, gravel is primarily quartzite with trace granite, sand contains abundant frosted and clear quartz, some feldspar, rock fragments, mottled re-worked bedrock, 85 degree fracture filled with alluvial material at 12.5-14.0', moist. 4% gravel, 14% sand, 9% silt, 73% clay.
				2.00 /2.00	5940	13				
					5939	14				Total depth at 14.0 ft.
					5938	15				
					5937	16				
					5936	17				
					5935	18				
					5934	19				
						20				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 20.0	GROUND ELEVATION (FT):	5935.64	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749571.89	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	09691
EAST:	2086038.21	LOCATOR NUMBER: 613	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/24/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 5.5 FT. - 3.0 FT. BACKFILL MATERIAL: BENTONITE 20.0 FT. - 16.0 FT.

* = ESTIMATED GRAIN SIZE/DISTRIBUTION AND DESCRIPTION

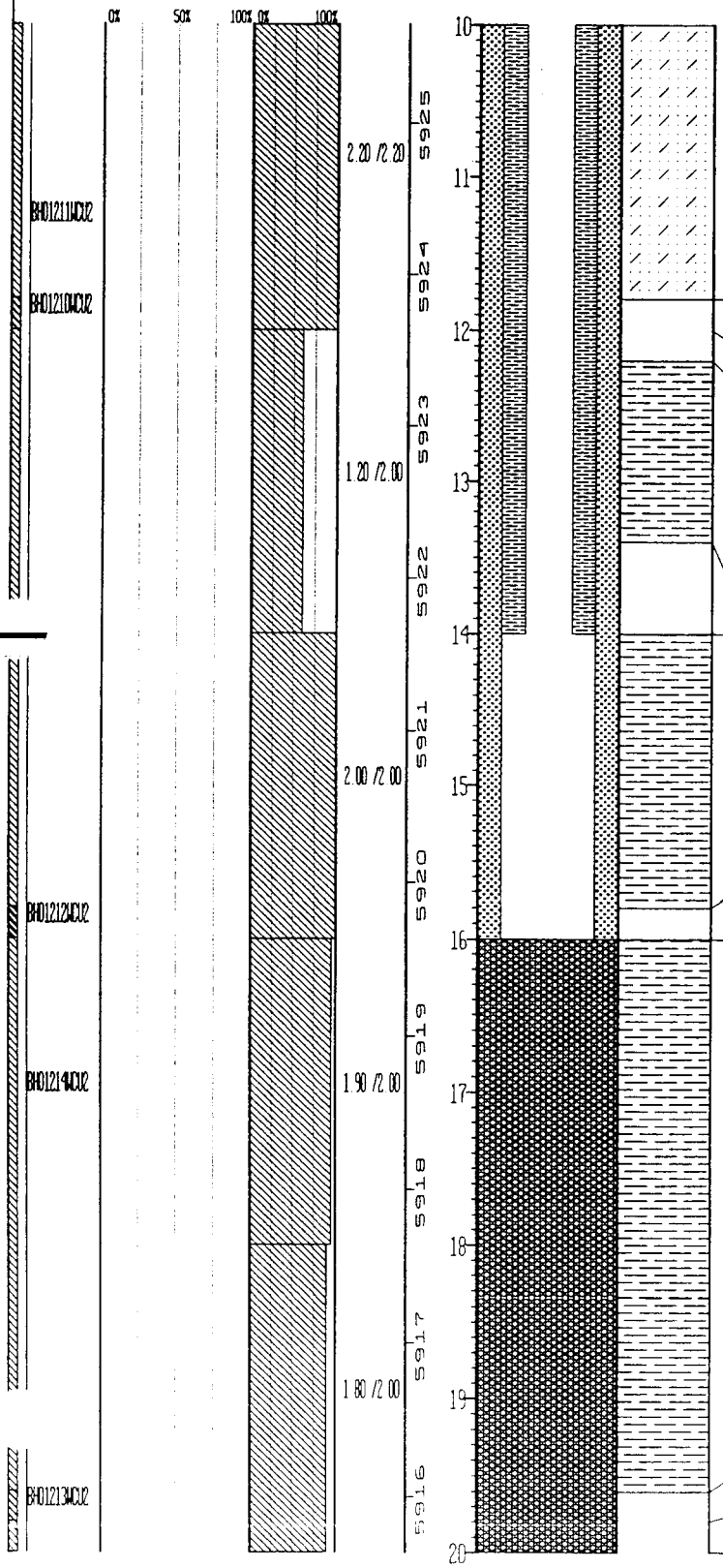


	Top soil, start of boring at 0.90 ft.
GC:	Clayey Gravel with some sand and silt * - dusky brown (5YR2/2), maximum gravel diameter .21', average .14', fine- to coarse-grained sand, well graded, angular to sub-rounded, moderate to high plasticity, gravel is primarily quartzite, sand contains abundant carbonaceous/organic material, quartz, some rock fragments, dark minerals, moist to wet. *35% gravel, 20% sand, 15% silt, 30% clay
	No recovery for this interval.
CL:	Clay with some sand and silt - olive gray (5Y3/2), maximum sand diameter .02' at 2.85', fine-grained, poorly graded, angular to rounded, high plasticity, abundant quartz, frosted quartz, some dark minerals, feldspar, trace mica, probably re-worked bedrock and alluvium, moist. 0% gravel, 10% sand, 9% silt, 81% clay. Top of bedrock at 3.1 ft.
CLAYSTONE:	Claystone with some silt and sand - light olive gray (5Y6/1) to pale yellowish orange (10YR8/6), as described below.
	VOA sample obtained from this interval.
	No recovery for this interval.
CLAYSTONE:	Claystone with some silt and sand - light olive gray (5Y6/1) to pale yellowish orange (10YR8/6), very fine-grained, very well sorted, sub-rounded to rounded, approximately 3% porosity, argillaceous cement, moderately friable, abundant frosted quartz, trace feldspar, dark minerals, mica, iron stain predominantly along laminea at 4.5-6.5', mottled to thin wispy laminea, carbonaceous material at 5.1', .01'x.01' clay rip-up clasts at 3.2-3.3', .01' iron nodule at 6.4', moist, probably re-worked bedrock but lack of alluvial material suggests re-working was pre-Rocky Flats Alluvium. 8% sand, 9% silt, 83% clay.
	No recovery for this interval.
CLAYSTONE:	Claystone with some silt and sand - light olive gray (5Y6/1) to pale yellowish orange (10YR8/6), as described above.
CLAYEY SILTSTONE:	Clayey Siltstone with some sand - yellowish gray (5Y7/2) to light olive gray (5Y6/1) with dark yellowish orange (10YR6/6) iron stain along laminea throughout, very fine-grained, very well sorted, sub-rounded to rounded, approximately 3% porosity, argillaceous cement, moderately friable, abundant frosted quartz, some iron stain, dark minerals, trace feldspar, mica, moist to wet. 6% sand, 56% silt, 38% clay.
	VOA sample obtained from this interval.
	No recovery for this interval.
CLAYEY SILTSTONE:	Clayey Siltstone wiht some sand - yellowish gray (5Y7/2) to light olive gray (5Y6/1) with dark yellowish orange (10YR6/6), as described above.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 20.0	GROUND ELEVATION (FT):	5935.64	PROJECT NUMBER:	002/RI	LOG OF BORING NUMBER:
NORTH:	748571.89	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	09691
EAST:	2086038.21	LOCATOR NUMBER: 613	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/24/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 5.5 FT. - 3.0 FT. BACKFILL MATERIAL: BENTONITE 20.0 FT. - 16.0 FT.

* = ESTIMATED GRAIN SIZE/DISTRIBUTION AND DESCRIPTION



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
SILTY SANDSTONE:	Silty Sandstone with some clay - yellowish gray (5Y7/2) with some pale yellowish orange (10YR8/6), iron stain, very fine- to fine-grained, well sorted, sub-rounded to well rounded, approximately 17% porosity, argillaceous cement, highly friable, abundant frosted quartz, some dark minerals, trace feldspar, kaolinized feldspar, iron stain, rock fragments, iron nodule at 10.3', thinly to thickly laminated at 10.4-12.2', laminea predominately clay, wet to saturated. 54% sand, 27% silt, 19% clay.
	VOA sample obtained from this interval.
	No recovery for this interval.
CLAYSTONE:	Claystone with some silt - olive gray (5Y4/1) to grayish brown (5YR3/2), dark yellowish orange (10YR6/6), as described below.
	No recovery for this interval.
CLAYSTONE:	Claystone with some silt - olive gray (5Y4/1) to grayish brown (5YR3/2), dark yellowish orange (10YR6/6), as described below.
	VOA sample obtained from this interval.
CLAYSTONE:	Claystone with some silt - olive gray (5Y4/1) to grayish brown (5YR3/2), dark yellowish orange (10YR6/6) where iron stained at 12.9', 13.3', 14.0', 14.2', 14.6', 15.0', 16.7', 18.8', 19.3', very fine-grained, very well sorted, rounded approximately 2% porosity, argillaceous cement, non-friable, abundant quartz, dark minerals, iron nodules at 13.3', 14.6', iron staining along laminea, 1' caliche nodules at 18.8', mottled to thinly laminated, carbonaceous material at 16.1', 17.7-18.0' (plant/wood fragments), 60 degree iron stained fracture at 14.2', possible polynomorphs at 17.5-18.0', unit coarsens up, saturated to 13.4', dry to moist, 14.0-16.0', moist to wet at 16.0-20.0'. 2% sand, 10% silt, 88% clay.
	VOA sample obtained from this interval.
	No recovery for this interval.

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 20.0	GROUND ELEVATION (FT):	5935.64	PROJECT NUMBER:	OU2/RI
NORTH: 748571.89	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST: 2086038.21	LOCATOR NUMBER: 613	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/24/92

LOG OF BORING NUMBER: 09691

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 5.5 FT. - 3.0 FT. BACKFILL MATERIAL: BENTONITE 20.0 FT - 16.0 FT.

= ESTIMATED GRAIN SIZE/DISTRIBUTION AND DESCRIPTION

CHEMICAL SAMPLE	GRADATIONAL SA	DEPTH	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/ INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
							5915	20				Total depth at 20.0 ft.
							5914	21				
							5913	22				
							5912	23				
							5911	24				
							5910	25				
							5909	26				
							5908	27				
							5907	28				
							5906	29				
								30				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 22.4	GROUND ELEVATION (FT):	5942.97	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 748751.84	AREA: 903 PAD	CASING DIAMETER (IN):		GEOLOGIST:	J.P. O'BRIEN	09791
EAST: 2086281.85	LOCATOR NUMBER: 613	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	02/25/92	

REMARKS: HOLLOW-STEM AUGER BACKFILL MATERIAL: BENTONITE 22.4 FT. - 3.0 FT.

* = GRAIN SIZE DISTRIBUTION AND DESCRIPTION ESTIMATED.

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% – 50% – 100%)	PERCENT RECOVERY (0% – 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
						0				Top soil, start of boring at 0.90 ft.
				1.80 /2.10	5942	1			CL	Sandy Clay with some silt and gravel * - dark yellowish brown (10YR4/2), maximum gravel diameter .02', fine-grained sand, poorly graded, sub-angular to sub-rounded, moderate to high plasticity, gravel is primarily quartzite, sand contains abundant carbonaceous/ organic material, quartz, some rock fragments, moist. *3% gravel, 22% sand, 15% silt, 60% clay
					5941	2			ML	Gravelly Silt with some sand and clay - moderate yellowish brown (10YR5/4), maximum gravel diameter .12', average .04', fine- to coarse-grained sand, well graded, angular to sub-rounded, moderate plasticity, gravel is primarily quartzite, sand contains abundant quartz, some rock fragments, feldspar, kaolinized feldspar, mica, dark minerals, iron stain, no gravel at 2.1-4.3', some kaolinized feldspar throughout, moist. 17% gravel, 15% sand, 54% silt, 12% clay.
				2.00 /2.00	5940	3				
	001216WC02				5939	4				VOA sample obtained from this interval.
					5938	5			ML	Gravelly Silt with some sand and clay - moderate yellowish brown (10YR5/4), as described above.
	BH001218WC02			1.30 /2.10						
					5937	6				No recovery for this interval.
									ML	Gravelly Silt with some sand and clay - moderate yellowish brown (10YR5/4), as described above.
					5936	7				No recovery for this interval. VOA sample obtained from this interval.
				1.80 /2.00					ML	Gravelly Silt with some sand and clay - moderate yellowish brown (10YR5/4), as described above.
	BH001217WC02				5935	8			GM	Silty Gravel with some clay and sand - light brown (5YR5/6), maximum gravel diameter .21', average .06', fine- to coarse-grained sand, well graded, sub-angular to sub-rounded, low to moderate plasticity, gravel is primarily quartzite, sand contains abundant quartz, some rock fragments, feldspar, dark minerals, iron stain, trace mica, kaolinized feldspar, contact with bedrock sharp, recovery for interval 12.1-14.1' consists of .7' shaving from within core barrel, on basis of peel bedrock contact may be as high as 12.2' or as low as 13.6', contact is sharp with gravel loaded into bedrock, contact dips at 25 degrees. 49% gravel, 11% sand, 23% silt, 17% clay
				1.40 /1.90	5934	9				
					5933	10				No recovery for this interval.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 22.4	GROUND ELEVATION (FT):	5942.97	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	748751.84	AREA: 903 PAD	CASING DIAMETER (IN):		GEOLOGIST:	J.P. O'BRIEN	09791
EAST:	2086281.85	LOCATOR NUMBER: 613	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	02/25/92	

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 22.4 FT. - 3.0 FT.

* = GRAIN SIZE DISTRIBUTION AND DESCRIPTION ESTIMATED.

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%						GM	Silty Gravel with some clay and sand - light brown (5YR5/6), as described above.
	BH0122WB2			1.20 /2.00	5932	11				VOA sample obtained from this interval.
					5931	12				No recovery for this interval. Possible bedrock contact at 12.2-13.6'.
				0.00 /2.00	5930	13				No recovery for this interval.
					5929	14				
				0.00 /2.00	5928	15				
					5927	16				No recovery for this interval. Dry core at 16.1-18.1', some recovery at 16.1-16.4', appears to be dark gray (N3) bedrock.
				0.00 /2.00	5926	17				No recovery for this interval. Over drill sluff at 18.1-18.8'
					5925	18			CLAYSTONE	Claystone with some silt - light olive gray (5Y5/2) to dark gray (N3) at 21.0-21.2', dark yellowish orange (10YR6/6) where iron stained at 19.7', 20.4', 20.6-20.8', 21.4', 21.6-22.0', 22.0-22.4', very fine- to fine-grained, well to very well sorted, sub-rounded to rounded, argillaceous cement, slightly friable, abundant frosted quartz, trace dark minerals, iron stain, mica, 90 degree iron stained fracture at 20.6-20.8', 75 degree iron stained fracture at 21.6-22.0', 60 degree iron stained fracture at 22.0-22.4', abundant carbonaceous material - petroleum product at 21.0-21.3', light olive gray (5Y6/1) silty sand bed at 19.1-19.5', moist 5% sand, 15% silt, 80% clay
				2.20 /2.20	5924	19				
					5923	20				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 22.4	GROUND ELEVATION (FT):	5942.97	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	748751.84	AREA: 903 PAD	CASING DIAMETER (IN):		GEOLOGIST:	J.P. O'BRIEN	09791
EAST:	2086281.85	LOCATOR NUMBER: 613	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	02/25/92	

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 22.4 FT - 3.0 FT.

* = GRAIN SIZE DISTRIBUTION AND DESCRIPTION ESTIMATED.

CHEMICAL SAMPLE / GRADATIONAL SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					20				VOA sample obtained from this interval.
			2.10/2.10	5922	21			CLAYSTONE:	Claystone with some silt - light olive gray (5Y5/2) to dark gray (N3), as described above.
				5921	22				
				5920	23				Total depth at 22.4 ft.
				5919	24				
				5918	25				
				5917	26				
				5916	27				
				5915	28				
				5914	29				
				5913	30				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 20.0	GROUND ELEVATION (FT): 5969.37	PROJECT NUMBER: 002/RI	LOG OF BORING NUMBER:	
NORTH: 749573.61	AREA: MOUND	CASING DIAMETER (IN):	GEOLOGIST: J.A. JEHN	09891	
EAST: 2086116.43	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 12/03/91		
REMARKS: HOLLOW STEM AUGER.		BACKFILL MATERIAL: BENTONITE 20.0 FT. - 3.0 FT.			

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
										Top soil, start of boring at 0.90 ft.
				0.00 /0.90	5969	0			GC:	Sandy Gravel with some clay - grayish black (N2), maximum gravel size 2" diameter, average 1", coarse- to fine-grained sand, well graded, low to medium plasticity, gravel predominantly quartzite, some granite and quartz, dominant lithology sand rock fragments with abundant quartz and some K-spar, mica and dark minerals, abundant caliche throughout, no apparent bedding, moist, some roots present. 65% gravel, 21% sand, 2% silt, 12% clay.
				1.00 /2.10	5968	1				
					5967	2				
	BH00363A002					3				VOA sample obtained from this interval
				0.50 /1.30	5966				GW:	Sandy Gravel - pinkish gray (5YR8/1) to light brown (5YR5/6), as described below.
										No recovery for this interval
					5965	4			GW:	Sandy Gravel - pinkish gray (5YR8/1) to light brown (5YR5/6), maximum gravel size greater than 2", average gravel size 1", coarse- to fine-grained sand, well graded, angular to sub-angular, low plasticity, gravel predominantly quartzite with some granite, dominant lithology of sand rock fragments with abundant quartz, trace mica, pyrite, K-spar and dark minerals, abundant caliche at 8.7', trace thereafter, trace limonite, no apparent bedding, moist. 77% gravel, 19% sand, 3% silt.
				1.40 /1.70	5964	5				
	BH00365A002									
										No recovery for this interval
	BH00364A002				5963	6			GW:	Sandy Gravel - pinkish gray (5YR8/1) to light brown (5YR5/6), as described above.
										VOA sample obtained from this interval
									GW:	Sandy Gravel - pinkish gray (5YR8/1) to light brown (5YR5/6), as described above.
				0.70 /2.20	5962	7				No recovery for this interval
						8				
					5961				GW:	Sandy Gravel - pinkish gray (5YR8/1) to light brown (5YR5/6), as described above.
				0.50 /1.80		9				No recovery for this interval
					5960	10				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 20.0	GROUND ELEVATION (FT): 5969.37	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:	
NORTH: 749573.61	AREA: MOUND	CASING DIAMETER (IN):	GEOLOGIST: J.A. JEHN	09891	
EAST: 2086116.43	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 12/03/91		
REMARKS: HOLLOW STEM AUGER.		BACKFILL MATERIAL: BENTONITE 20.0 FT - 3.0 FT.			

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	BH00366WC02				5959	10			GW	Sandy Gravel - pinkish gray (5YR8/1) to light brown (5YR5/6), as described above.
										VOA sample obtained from this interval.
	BH00367WC02			0.90 /2.10	5958	11			GW	Sandy Gravel - pinkish gray (5YR8/1) to light brown (5YR5/6), as described above.
										No recovery for this interval.
					5957	12			GW	Sandy Gravel - pinkish gray (5YR8/1) to light brown (5YR5/6), as described above.
				1.00 /2.10	5956	13				No recovery for this interval. Based on nearby well control, top of bedrock placed at 13.2 ft.
					5955	14			SILTY CLAYSTONE	Silty Claystone with some sand - dark yellowish orange (10YR6/6), as described below
				1.90 /1.80	5954	15				
	BH00368WC02									VOA sample obtained from this interval.
					5953	16			SILTY CLAYSTONE	Silty Claystone with some sand - dark yellowish orange (10YR6/6), fine- to very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, argillaceous cement, slightyl friable, dominant lithology sand clear quartz with some dark minerals and trace mica, abundant iron staining on grains, some limonite throughout, trace caliche clasts throughout, some carbonaceous material throughout, trace horizontal bedding throughout, trace vertical healed fractures at 17.8-18.0', iron nodule at 19.7', moist, some manganese staining throughout, some 30-45 degree healed fractures with iron at 17.4-17.6', trace 45 degree fracture healed with iron at 19.8-19.9' 67% clay, 23% silt, 10% sand
	BH00369WC02			2.10 /2.10	5952	17				
					5951	18				
				2.00 /1.90	5950	19				
						20				Total depth at 20.0 ft

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 20.0	GROUND ELEVATION (FT): 5967.74	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:
NORTH:	749651.77	AREA: MOUND	CASING DIAMETER (IN):	GEOLOGIST: J.P. O'BRIEN	09991
EAST:	2086158.49	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 12/02/91	
REMARKS:					

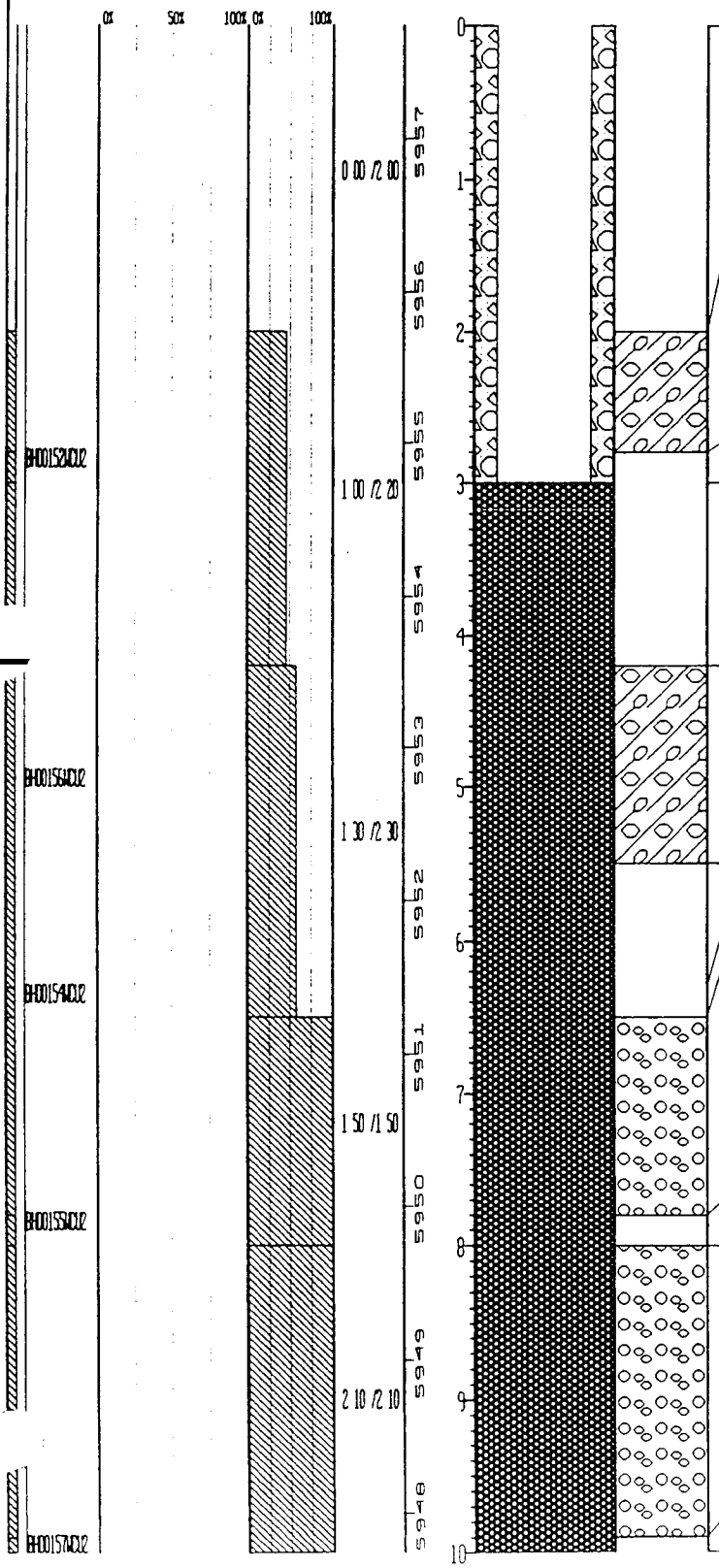
CHEMICAL SAMPLE / GRADATIONAL SAMPLE / DEPTH	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% – 50% – 100%)	PERCENT RECOVERY (0% – 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
						0				Top soil, start of boring at 0.90 ft.
				1.10 /2.10	5967	1			GC:	Sandy Gravel with some clay - grayish black (N2), maximum gravel diameter 1 1/2", average 1/2", coarse- to fine-grained sand, well graded, sub-angular to sub-rounded, low to medium plasticity, gravel primarily quartzite with some quartz, sand contains abundant quartz with some rock fragments, trace dark minerals, some caliche throughout, no apparent bedding, wet, some root present. 68% gravel, 21% sand, 2% silt, 9% clay
					5966	2			GW:	Sandy Gravel - pinkish gray (5YR8/1), maximum gravel diameter 1", average 1/2", coarse- to fine-grained sand, well graded, sub-angular, low plasticity, gravel primarily quartzite, sand contains abundant quartz, abundant caliche throughout, no apparent bedding, dry. 62% gravel, 35% sand, 1% silt, 2% clay
	BH00353C02			1.40 /2.10	5965	3				VOA sample obtained from this interval.
									GW:	Sandy Gravel - pinkish gray (5YR8/1), as described above.
					5964	4				No recovery for this interval.
	BH00355C02			1.00 /1.80	5963	5			GW:	Sandy Gravel - light brown (5YR5/6), maximum gravel diameter 1 1/2", average 1/2", coarse- to fine-grained sand, well graded, low plasticity, gravel primarily quartzite with trace granite, sand contains abundant quartz with some rock fragments, trace dark minerals and mica, some caliche at 4.2-8.0', trace limonite 8.6-9.0', no apparent bedding, moist. 64% gravel, 32% sand, 3% silt, 1% clay
					5962	6				
	BH00354C02			1.20 /2.00	5961	7				VOA sample obtained from this interval.
									GW	Sandy Gravel - light brown (5YR5/6), as described above.
					5960	8				No recovery for this interval.
				1.20 /2.00	5959	9			GW:	Sandy Gravel - light brown (5YR5/6), as described above, trace low angle bedding with interbedded pale olive (10YR6/2), clay layers at 9.0-9.2'
					5958	10				No recovery for this interval.

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 20.0	GROUND ELEVATION (FT): 5967.74	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:	
NORTH: 749651.77	AREA: MOUND	CASING DIAMETER (IN):	GEOLOGIST: J.P. O'BRIEN	09991	
EAST: 2086158.49	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 12/02/91		
REMARKS:					

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
						10			GW	Sandy Gravel - light brown (5YR5/6), as described above.
	BH00357A012 BH00356A012			1.40 /2.00	5957	11				VOA sample obtained from this interval.
									GW	Sandy Gravel - light brown (5YR5/6), as described above.
					5956					No recovery for this interval.
						12			GW	Sandy Gravel - light brown (5YR5/6), as described above. Top of bedrock at 13.1 ft.
				1.30 /2.00	5955	13			SILTY CLAYSTONE	Silty Claystone - light olive (10Y5/4) to dark yellowish orange (10YR6/6), as described below.
										No recovery for this interval.
					5954	14			SILTY CLAYSTONE	Silty Claystone - light olive (10Y5/4) to dark yellowish orange (10YR6/6), fine- to very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, argillaceous cement, slightly friable, sand contains abundant clear quartz, some iron staining on grains, trace dark minerals and limonite, carbonaceous material, and caliche clasts throughout, trace iron staining throughout, thin laminations of clay, silty clay and sand some soft sediment deformation at 17.8-20.0', sand layers at 15.6-18.7', 19.3-19.4', and 19.5-19.6', no apparent fractures, moist, note: gravel at 14.0' was pushed from 13.1'
				2.00 /2.00	5953	15				
	BH00358A012				5952					10% sand, 23% silt, 67% clay.
										VOA sample obtained from this interval.
						16			SILTY CLAYSTONE	Silty Claystone - light olive (10Y5/4) to dark yellowish orange (10YR6/6), as described above.
	BH00361A012			2.00 /2.00	5951	17				
										VOA sample obtained from this interval.
	BH00359A012				5950				SILTY CLAYSTONE	Silty Claystone - light olive (10Y5/4) to dark yellowish orange (10YR6/6), as described above.
						18				
				2.10 /2.00	5949	19				
										VOA sample obtained from this interval.
	BH00360A012				5948				SILTY CLAYSTONE	Silty Claystone - light olive (10Y5/4) to dark yellowish orange (10YR6/6), as described above, iron nodule at 20.0'.
						20				Total depth at 20.0 ft.

STATE PLANE COORDINATE		TOTAL DEPTH (FT) 54 0	GROUND ELEVATION (FT)	5957 74	PROJECT NUMBER	OU2/RI	LOG OF BORING NUMBER
NORTH	749788 51	AREA NE TRENCHES	CASING DIAMETER (IN)		GEOLOGIST	J.P. O'BRIEN	10191
EAST	2086867 71	LOCATOR NUMBER H13	BOREHOLE DIAMETER (IN)	6 5	DATE DRILLED	12/02/91	

REMARKS GRAIN SIZE DISTRIBUTION AND DESCRIPTIONS ESTIMATED, FIELD READING INDICATE GREATER THAN 5 PPM (APPROXIMATELY 273 PPM)
RIG GEOLOGIST MARKED RECOVERY INTERVALS AT SITE



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	Top soil, start of boring No recovery until 2 0 ft
GC	Sandy Gravel with some clay and silt - dark yellowish brown (10YR4/2) to dusky brown (5YR2/2) at 4 2-5 5', maximum gravel diameter .2', average 1', fine- to coarse-grained sand, well graded, sub-angular to sub-rounded, moderate plasticity, gravel is primarily quartzite, sand contains abundant carbonaceous/organic material, quartz, rock fragments, petroleum product at 4 2-5 5', plastic, wire, cardboard at 5 1' 55% gravel, 22% sand, 10% silt, 13% clay
	VOA sample obtained from this interval
	No recovery for this interval
GC	Sandy Gravel with some clay and silt - dark yellowish brown (10YR4/2) to dusky brown (5YR2/2), as described above
	No recovery for this interval
	VOA sample obtained from this interval
GW	Sandy Gravel with some clay - grayish orange (10YR7/4) to moderate brown (5YR4/4), maximum gravel diameter > 25', average 13', fine- to coarse-grained sand, well graded, sub-angular to sub-rounded, low plasticity, gravel is primarily quartzite with some arkosic arenite at 8 5', sand contains abundant quartz, some rock fragments saturated with dark brown petroleum product at 6 5-7 0' 60% gravel, 28% sand, 3% silt, 9% clay
	VOA sample obtained from this interval
GW	Sandy Gravel with some clay - grayish orange (10YR7/4) to moderate brown (5YR4/4), as described above
	VOA sample obtained from this interval

STATE PLANE COORDINATE		TOTAL DEPTH (FT) 54 0	GROUND ELEVATION (FT)	5957 74	PROJECT NUMBER	OU2/RI	LOG OF BORING NUMBER
NORTH	749788 51	AREA NE TRENCHES	CASING DIAMETER (IN)		GEOLOGIST	J P O'BRIEN	10191
EAST	2086867 71	LOCATOR NUMBER H13	BOREHOLE DIAMETER (IN)	6 5	DATE DRILLED	12/02/91	

REMARKS GRAIN SIZE DISTRIBUTION AND DESCRIPTIONS ESTIMATED, FIELD READING INDICATE GREATER THAN 5 PPM (APPROXIMATELY 273 PPM)
RIG GEOLOGIST MARKED RECOVERY INTERVALS AT SITE

TH DEPTH	CHEMICAL SAMP GRADATIONAL S	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		BH00157WC02	0% 50%	100% 0% 100%			10			GW	Sandy Gravel with some clay - grayish orange (10YR7/4) to moderate brown (5YR4/4), as described above
		BH00158WC02				5947					VOA sample obtained from this interval
		BH00160WC02			6 00 /2 00		11				No recovery for this interval
						5946					
							12			GW	Sandy Gravel with some clay - grayish orange (10YR7/4) to moderate brown (5YR4/4), as described above
						5945					
		BH00159WC02			1 20 /2 00		13				VOA sample obtained from this interval
											No recovery for this interval
						5944				GW	Sandy Gravel with some clay - grayish orange (10YR7/4) to moderate brown (5YR4/4), as described above
							14				Top of bedrock at 14 5 ft
						5943				SILTY CLAYSTONE	Silty Claystone with some sand - yellowish gray (5YR7/2) to dark yellowish orange (10YR6/6) where iron stained at 14 6-14 7', 16 9', 20 7-20 9', 22 3', 23 5', very fine- to fine-grained, well sorted, sub-angular, approximately 4% porosity argillaceous cement, slightly friable, sand contains abundant quartz, thinly laminated, increased sand content at 18 1-19 3', approximately 20 1-21 0', iron nodule at 22 4', moist 15% sand, 25% silt, 60% clay
					2 00 /2 00		15				
						5942					
		BH00161WC02					16				VOA sample obtained from this interval
						5941				SILTY CLAYSTONE	Silty Claystone with some sand - yellowish gray (5YR7/2) to dark yellowish orange (10YR6/6), as described above
		BH00162WC02			2 00 /2 00		17				
						5940					
							18				
						5939					
					1 20 /2 00		19				
						5938					No recovery for this interval
							20				

STATE PLANE COORDINATE		TOTAL DEPTH (FT) 54 0	GROUND ELEVATION (FT)	5957 74	PROJECT NUMBER	002/RI	LOG OF BORING NUMBER
NORTH	749788 51	AREA NE TRENCHES	CASING DIAMETER (IN)		GEOLOGIST	J.P O'BRIEN	10191
EAST	2086867 71	LOCATOR NUMBER H13	BOREHOLE DIAMETER (IN)	6 5	DATE DRILLED	12/02/91	

REMARKS GRAIN SIZE DISTRIBUTION AND DESCRIPTIONS ESTIMATED. FIELD READING INDICATE GREATER THAN 5 PPM (APPROXIMATELY 273 PPM)
RIG GEOLOGIST MARKED RECOVERY INTERVALS AT SITE

TH DEPTH	CHEMICAL SAMP GRADATIONAL S	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					1.00 /1 90	5937	20–21			SILTY CLAYSTONE	Silty Claystone with some sand - yellowish gray (5YR7/2) to dark yellowish orange (10YR6/6), as described above
						5936	21–22				No recovery for this interval
		BH00164C02			2 00 /2 00	5935	22–23			SILTY CLAYSTONE	Silty Claystone with some sand - yellowish gray (5YR7/2) to dark yellowish orange (10YR6/6), as described above
						5934	23–24				
					1 00 /2 00	5933	24–25			SANDSTONE	Sandstone with some silt and clay - yellowish gray (5Y7/2) to dark yellowish orange (10YR6/6), very fine- to medium-grained, moderately sorted, sub-angular to rounded, approximately 25% porosity, argillaceous cement, highly friable, abundant frosted quartz, trace dark minerals, thinly to thickly laminated at 24 6-28 0', unconsolidated at 28 0-32 6', iron stain at 26 5-26 8', 34 0-34 5', 32 6-33 1', moist at 24 6-28 0', saturated at 28 0-34 5' 80% sand, 12% silt, 8% clay
						5932	25–26				No recovery for this interval
					1 00 /2 00	5931	26–27			SANDSTONE	Sandstone with some silt and clay - yellowish gray (5Y7/2) to dark yellowish orange (10YR6/6), as described above
						5930	27–28				No recovery for this interval
		BH00165C02			2 00 /2 00	5929	28–29			SANDSTONE	Sandstone with some silt and clay - yellowish gray (5Y7/2) to dark yellowish orange (10YR6/6), as described above
		BH00166C02				5928	29–30				VOA sample obtained from this interval

STATE PLANE COORDINATE		TOTAL DEPTH (FT) 54 0	GROUND ELEVATION (FT) 5957 74	PROJECT NUMBER 002/R1	LOG OF BORING NUMBER
NORTH	749788 51	AREA NE TRENCHES	CASING DIAMETER (IN)	GEOLOGIST J P O'BRIEN	10191
EAST	2086867 71	LOCATOR NUMBER H13	BOREHOLE DIAMETER (IN) 6 5	DATE DRILLED 12/02/91	

REMARKS GRAIN SIZE DISTRIBUTION AND DESCRIPTIONS ESTIMATED, FIELD READING INDICATE GREATER THAN 5 PPM (APPROXIMATELY 273 PPM)
RIG GEOLOGIST MARKED RECOVERY INTERVALS AT SITE

CHEMICAL SAMP / GRADATIONAL S	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50%	100% 0% 100%	1 00 /0 16		30			SILTY CLAYSTONE	Silty Claystone with some sand - light gray (N7), as described above
				1 50 /1 84	5927	31				
					5926	32				
				1 40 /2 00	5925	33			SANDSTONE	Sandstone with some silt and clay - yellowish gray (5Y7/2) to dark yellowish orange (10YR6/6), as described above
					5924	34				No recovery for this interval
									SANDSTONE	Sandstone with some silt and clay - yellowish gray (5Y7/2) to dark yellowish orange (10YR6/6), as described above
				2 00 /2 00	5923	35			SANDY CLAYSTONE	Sandy Claystone with some silt - pale yellowish orange (10YR8/6) to medium light gray (N6), very fine- to fine-grained, well sorted, sub-angular to sub-rounded, approximately 11% porosity, argillaceous cement, moderately friable, sand contains abundant quartz, iron stain, some dark minerals, thinly laminated to thinly bedded, moist 25% sand, 10% silt, 65% clay
					5922	36			SILTY CLAYSTONE	Silty Claystone with some sand - light gray (N7), very fine-grained, very well sorted, sub-angular, approximately 7% porosity, argilloceous cement, moderately friable, sand contains abundant quartz, some dark minerals, trace iron stain, thinly to moderately laminated, moist 10% sand, 15% silt, 75% clay
				1 40 /2 00	5921	37				
					5920	38				No recovery for this interval
					5919	39			CLAYEY SANDSTONE	Clayey Sandstone with some silt - pinkish gray (5YR8/1), very fine- to medium-grained, moderately sorted, sub-rounded approximately 17% porosity, argillaceous cement, moderately to highly friable, sand contains abundant quartz, trace rock fragments, thin clay bed at 40 5-40 7', sand is loaded into clay bed along 40 degree surface, clay nodules-rip-up clasts at 40 5-41 3', thin bed of sandy clay at 44 3', approximately 50 degree bedding at 47 0-47 4' where unit is loaded into underlying unit, saturated 55% sand, 17% silt, 28% clay
				1 60 /4 00	5918	40				

STATE PLANE COORDINATE		TOTAL DEPTH (FT) 54 0	GROUND ELEVATION (FT)	5957 74	PROJECT NUMBER	002/RI	LOG OF BORING NUMBER
NORTH	749788 51	AREA NE TRENCHES	CASING DIAMETER (IN)		GEOLOGIST	J P O'BRIEN	10191
EAST	2086867 71	LOCATOR NUMBER H13	BOREHOLE DIAMETER (IN)	6 5	DATE DRILLED	12/02/91	

REMARKS GRAIN SIZE DISTRIBUTION AND DESCRIPTIONS ESTIMATED, FIELD READING INDICATE GREATER THAN 5 PPM (APPROXIMATELY 273 PPM)
RIG GEOLOGIST MARKED RECOVERY INTERVALS AT SITE

CHEMICAL SAMPLE	GRADATIONAL	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
				100%	1 60 /4 00	5917	40				
						5916	41				No recovery for this interval
						5915	42			CLAYEY SANDSTONE	Clayey Sandstone with some silt - pinkish gray (5YR8/1), as described above
					1 10 /2 00	5914	43				No recovery for this interval
						5913	44			CLAYEY SANDSTONE	Clayey Sandstone with some silt - pinkish gray (5YR8/1), as described above
					2 00 /2 00	5912	45				
					2 00 /2 00	5911	46				
						5910	47			CLAYEY SANDSTONE	Clayey Sandstone with some silt - light gray (N7) to medium light gray, very fine-grained, well sorted, sub-rounded to sub-angular, approximately 5% porosity, argillaceous cement, slightly friable, abundant quartz, some dark minerals, convolute bedding, slumps and pseudonodules at 52 0-54 0', dry 40% sand, 15% silt, 45% clay
					2 00 /2 00	5909	48				
						5908	49				VOA sample obtained from this interval
							50				

B10017\002

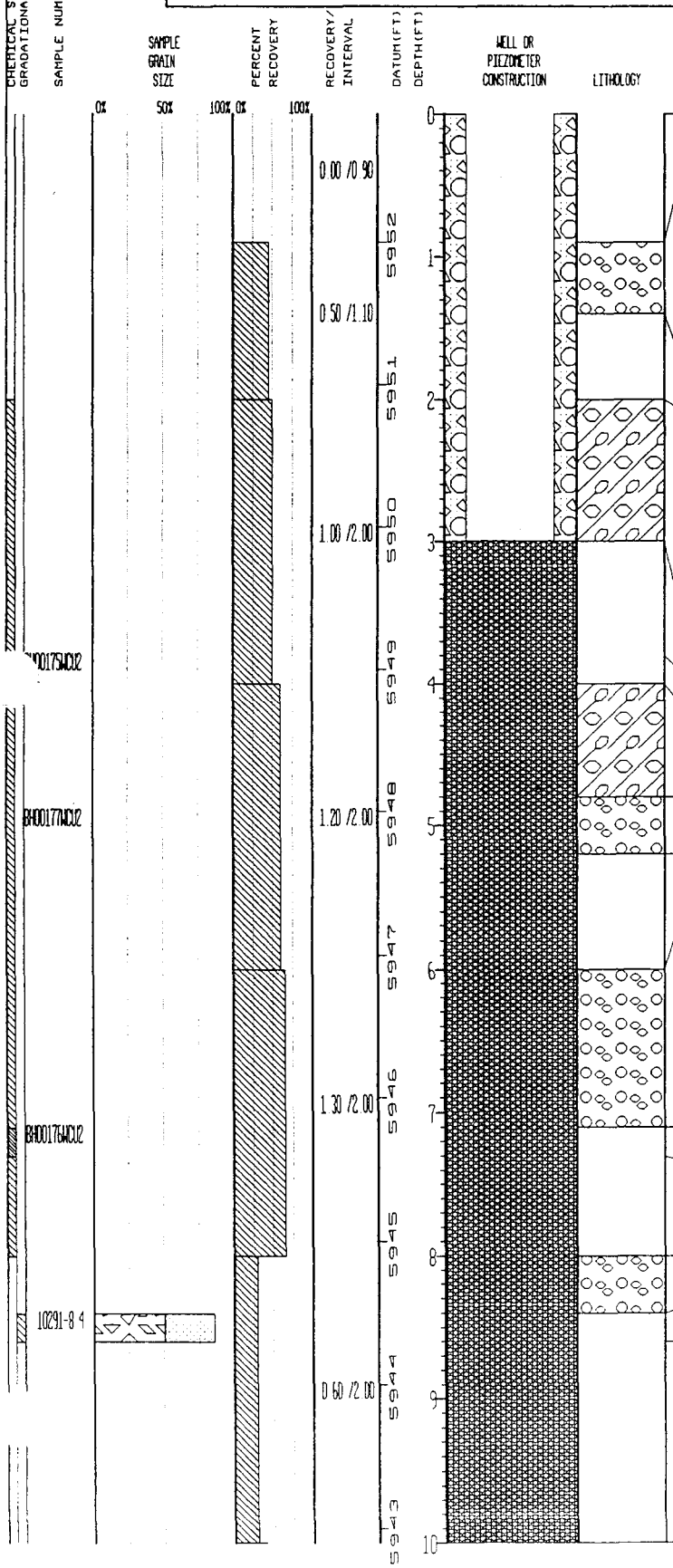
STATE PLANE COORDINATE		TOTAL DEPTH (FT) 54 0	GROUND ELEVATION (FT) 5957 74	PROJECT NUMBER 002/RI	LOG OF BORING NUMBER
NORTH	749788 51	AREA NE TRENCHES	CASING DIAMETER (IN)	GEOLOGIST J P O'BRIEN	10191
EAST	2086867 71	LOCATOR NUMBER H13	BOREHOLE DIAMETER (IN) 6 5	DATE DRILLED 12/02/91	

REMARKS GRAIN SIZE DISTRIBUTION AND DESCRIPTIONS ESTIMATED, FIELD READING INDICATE GREATER THAN 5 PPM (APPROXIMATELY 273 PPM)
RIG GEOLOGIST MARKED RECOVERY INTERVALS AT SITE

TH DEPTH	CHEMICAL SAM. GRADATIONAL S	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			0% 50% 100%	0% 100%	2 00 /2 00	5907	50			CLAYEY SANDSTONE	Clayey Sandstone with some silt - light gray (N7) to medium light gray, as described above
					2 00 /2 00	5906	51				
						5905	52				
						5904	53				
						5903	54				Total depth at 54 0 ft
						5902	55				
						5901	56				
						5900	57				
						5899	58				
						5898	59				
							60				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 60.0	GROUND ELEVATION (FT):	5952.90	PROJECT NUMBER:	002/RI	LOG OF BORING NUMBER:
NORTH:	749856.05	AREA: NE TRENCHES	CASING DIAMETER (IN):		GEOLOGIST:	L.A. GUST	10291
EAST:	2087180.89	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	12/10/91	

REMARKS: HOLLOW STEM AUGER. BACKFILL MATERIAL: BENTONITE 60.0 FT



	Top soil, start of boring at 0.90 ft.
GW	Sandy Gravel - moderate brown (5YR3/4), maximum size gravel 1 1/2" diameter, average 1/2" diameter, coarse to medium grained sand, well graded, sub-rounded, low plasticity, gravel quartzite with some arkosic arenite, diorite and granite, dominant lithology sand quartz with some rock fragments and trace dark minerals, mica and K-spar, some iron staining and caliche throughout, no apparent bedding, moist, some root present. 70% gravel, 25% sand, 1% silt, 4% clay
	No recovery for this interval.
GC	Sandy Gravel with some clay - dusky yellowish brown (10YR2/2), maximum size gravel 2" diamter, average 1/2" diameter, coarse to fine-grained sand, poorly graded, sub-rounded, low plasticity, gravel quartzite with some granite, dominant lithology sand quartz with some rock fragments and trace dark minerals and mica, abundant caliche throughout, no apparent bedding, moist, some wood fragments at 2.0'. 52% gravel, 31% sand, 4% silt, 13% clay
	No recovery for this interval.
	VOA sample obtained from this interval
GC	Sandy Gravel with some clay - dusky yellowish brown (10YR2/2), as described above.
GW	Sandy Gravel - moderate brown (5YR4/4), as described below.
	No recovery for this interval.
GW	Sandy Gravel - moderate brown (5YR4/4), maximum size gravel greater than 2" diameter, average 1" diameter, coarse- to fine-grained sand, sub-angular to sub-rounded, well graded, low plasticity, gravel primarily quartzite with some granite, dominant lithology sand rock fragments with abundant quartz and some dark minerals and trace mica, K-spar and pyrite, trace iron staining on grains, some caliche at 4.8'-7.1', no apparent bedding, moist. 63% gravel, 32% sand, 3% silt, 1% clay
	VOA sample obtained from this interval
	No recovery for this interval
GW	Sandy Gravel - moderate brown (5YR4/4), as described above
	VOA sample obtained from this interval
	No recovery for this interval

STATE PLANE COORDINATE		TOTAL DEPTH (FT): 60.0	GROUND ELEVATION (FT): 5952.90	PROJECT NUMBER: 002/RI	LOG OF BORING NUMBER:
NORTH:	749856.05	AREA: NE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: L.A. GUST	10291
EAST:	2087180.89	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 12/10/91	

REMARKS: HOLLOW STEM AUGER. BACKFILL MATERIAL: BENTONITE 60.0 FT

CHEMICAL SAMPLE / GRADATIONAL SA.	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%			10			GW	Sandy Gravel - moderate brown (5YR4/4), as described above
	BH00178WC02									VOA sample obtained from this interval
				0.80 /2.00	5942	11				No recovery for this interval
					5941	12			GW	Sandy Gravel - moderate brown (5YR4/4), as described above, trace carbonaceous material at 12.0-12.8'.
				0.80 /2.00	5940	13				No recovery for this interval
					5939	14			GW	Sandy Gravel - moderate brown (5YR4/4), as described above
				1.20 /2.00	5938	15				No recovery for this interval
	BH00181WC02				5937	16				VOA sample obtained from this interval
									GW	Sandy Gravel - moderate brown (5YR4/4), as described above
	BH00182WC02			1.10 /2.00	5936	17				No recovery for this interval Top of bedrock at 18.0 ft.
	10291-17.8				5935	18				No recovery for this interval
				1.80 /2.00	5934	19			SILTY SANDSTONE	Silty Sandstone - pale olive (10Y6/2), fine- to very fine-grained sand, well sorted, sub-angular to sub-rounded, approximately 20% porosity, argillaceous cement, moderately friable, dominant lithology sand clear quartz with some dark minerals, some limonite controlled by bedding planes, trace manganese staining throughout, some sand clast at 18.8-19.0', no apparent fractures, moist, weathered 56% sand, 40% silt, 4% clay
	BH00183WC02				5933	20				VOA sample obtained from this interval

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 60.0	GROUND ELEVATION (FT):	5952.90	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 749856.05	AREA: NE TRENCHES	CASING DIAMETER (IN):		GEOLOGIST:	L.A. GUST	10291
EAST: 2087180.89	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	12/10/91	
REMARKS: HOLLOW STEM AUGER. BACKFILL MATERIAL: BENTONITE 60.0 FT						

CHEMICAL SAMPL GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% – 50%)	PERCENT RECOVERY (100% 0% – 100%)	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
				1.70 /2.00	5932	20–21			SILTY SANDSTONE	Silty Sandstone - pale olive (10Y6/2), as described above, clay layer at 20.4-20.6' with trace soft sediment deformation, trace horizontal bedding with some hummocky cross stratification at 20.0-20.3', trace horizontal bedding with trace soft sediment deformation at 20.6-21.7'.
	10291-21.8				5931	22				No recovery for this interval.
										No recovery for this interval.
	BH001854C02			2.00 /2.00	5930	23			SILTY SANDSTONE	Silty Sandstone - pale olive (10Y6/2), as described above, 10 degree bedding at 23.3-24.0', some hummocky cross stratification at 23.3-30.2'
	BH001844C02				5929	24				VOA sample obtained from this interval.
				2.00 /2.00	5928	25			SILTY SANDSTONE	Silty Sandstone - pale olive (10Y6/2), as described above, banded iron staining at 24.8-25.8', 10 degree bedding at 24.8-25.8'
					5927	26				No recovery for this interval.
				2.00 /2.00	5926	27			SILTY SANDSTONE	Silty Sandstone - pale olive (10Y6/2), as described above
	BH001864C02				5925	28				VOA sample obtained from this interval.
	BH001874C02			1.40 /2.00	5924	29			SILTY SANDSTONE	Silty Sandstone - pale olive (10Y6/2), as described above, trace wood fragments at 29.1'
										No recovery for this interval.
										No recovery for this interval.
					5923	30			SILTY SANDSTONE	Silty Sandstone - pale olive (10Y6/2), as described above,

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 60.0	GROUND ELEVATION (FT):	5952.90	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 749856.05	AREA: NE TRENCHES	CASING DIAMETER (IN):		GEOLOGIST:	L.A. GUST	10291
EAST: 2087180.89	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	12/10/91	

REMARKS: HOLLOW STEM AUGER. BACKFILL MATERIAL: BENTONITE 60.0 FT

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
						30				very thin clay and sand laminations with trace hummocky cross stratification at 30.2-32.4', trace iron nodules at 30.2-34.3', trace carbonaceous material controlled by bedding at 30.2-34.3'
				1.50 /2.00	5922	31				No recovery for this interval
										VOA sample obtained from this interval.
	BH00188W012								SILTY SANDSTONE	Silty Sandstone - pale olive (10Y6/2), as described above, trace 10 degree bedding at 33.0-33.8'
					5921					No recovery for this interval.
						32			SILTY SANDSTONE	Silty Sandstone - pale olive (10Y6/2), as described above.
				2.00 /2.00	5920	33			CLAYEY SILTSTONE	Clayey Siltstone with some sand - olive gray (5Y3/2) to dark yellowish orange (10YR6/6), very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, argillaceous cement, slightly to moderately friable, dominant lithology sand clear quartz with trace dark minerals, iron nodules and mica, some iron staining on grains, some limonite throughout, clay layers at 34.3-34.9' and laminations at 35.1-35.6', no apparent fractures, moist, weathered. 23% sand, 46% silt, 31% clay.
					5919	34				VOA sample obtained from this interval
										No recovery for this interval
	BH00190W012			1.80 /2.00	5918	35			CLAYEY SILTSTONE	Clayey Siltstone with some sand - olive gray (5Y3/2) to dark yellowish orange (10YR6/6), as described above, some carbonaceous material at 36.1', abundant limonite at 36.2-36.3'
	BH00189W012				5917	36			SANDSTONE	Sandstone with some silt - dusky yellow (5Y6/4), coarse- to very fine-grained sand, poorly sorted, sub-rounded to rounded, approximately 30% porosity, silica with trace argillaceous cement, highly friable, dominant lithology sand clear quartz with some dark minerals and iron nodules, trace iron staining on grains, some limonite and trace clay clast throughout, massive, no apparent bedding or fractures, very moist to wet, weathered. 90% sand, 9% silt, 1% clay.
										No recovery for this interval
				2.00 /2.00	5916	37			SANDSTONE	Sandstone with some silt - dusky yellow (5Y6/4), as described above.
									SANDY CLAYSTONE	Sandy Claystone with some silt - olive gray (5Y3/2), fine- to very fine-grained sand, well sorted, sub-angular to sub-rounded, approximately 10% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with trace dark minerals, trace limonite, no apparent bedding, some 10 to 45 degree healed fractures with iron at 38.4-38.8', wet, slightly weathered. 21% sand, 16% silt, 63% clay.
	10291-37.8				5915	38				
									SILTY SANDSTONE	Silty Sandstone with some clay - dusky yellow (5Y6/2), as described below
				2.00 /2.00	5914	39				VOA sample obtained from this interval
									SILTY SANDSTONE	Silty Sandstone with some clay - dusky yellow (5Y6/2), very fine-grained sand, well sorted, sub-angular, approximately 20% porosity, argillaceous cement, moderately friable, dominant lithology sand clear quartz with trace dark minerals and iron nodules, some iron staining on
	BH00193W012				5913	40				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 60.0	GROUND ELEVATION (FT): 5952.90	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:
NORTH: 749856.05	AREA: NE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: L.A. GUST	10291
EAST: 2087180.89	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 12/10/91	

REMARKS: HOLLOW STEM AUGER. BACKFILL MATERIAL: BENTONITE 60.0 FT

CHEMICAL SAMPLE / GRADATIONAL SA.	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% – 50%)	PERCENT RECOVERY (0% – 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
						40				grains, some limonite and trace clay clast throughout, no apparent bedding or fractures, very moist, weathered. 56% sand, 35% silt, 9% clay
	BH00193MC02			2.00 /2.00	5912	41			SANDY SILTSTONE	Sandy Siltstone with some clay - grayish olive (10Y4/2), very fine-grained sand, well sorted, sub-angular to sub-rounded, approximately 15% porosity, argillaceous cement, slightly to moderately friable, dominant lithology sand clear quartz with trace dark minerals, trace iron staining on grains, trace limonite throughout, hummocky cross-stratification with low angle bedding at 40.7-41.8', no apparent fractures, very moist, slightly weathered. 40% sand, 45% silt, 15% clay
					5911	42			SANDSTONE	Sandstone with some silt - dusky yellow (5Y6/2), fine- to very-fine grained sand, well sorted, sub-angular to sub-rounded, approximately 25% porosity, argillaceous and silica cement, highly friable, dominant lithology sand clear quartz with trace dark minerals and iron nodules, some limonite throughout, no apparent fractures or bedding, very moist, weathered. 83% sand, 15% silt, 2% clay
				2.00 /2.00	5910	43			SILTY SANDSTONE	Silty Sandstone with some clay - grayish olive (10Y4/2), very fine-grained sand, well sorted, sub-angular to sub-rounded, approximately 20% porosity, argillaceous cement, moderately friable, dominant lithology sand clear quartz with trace dark minerals, some limonite throughout, no apparent bedding or fractures, very moist 58% sand, 34% silt, 8% clay
	10291-43.8				5909	44			SANDSTONE	Sandstone with some silt - dark yellowish orange (10YR6/6), as described below, trace low angle bedding at 43.0-43.8'
				2.00 /2.00	5908	45				No recovery for this interval
					5907	46			SANDSTONE	Sandstone with some silt - dark yellowish orange (10YR6/6), fine- to very fine-grained sand, well sorted, sub-rounded to rounded, approximately 25% porosity, silica with trace argillaceous cement, highly friable, dominant lithology sand clear quartz with some dark minerals and trace iron nodules, abundant limonite and trace clay clasts throughout, some thin clay laminations at 44.0-44.6', 10 degree bedding controlling limonite at 44.6-45.6', no apparent fractures, moist, weathered 87% sand, 11% silt, 2% clay
	BH00194MC02			2.00 /2.00	5906	47			SILTY SANDSTONE	Silty Sandstone with some clay - light olive gray (5Y5/2), as described below, 15 degree bedding at 45.6-45.8'
										No recovery for this interval
	10291-47.8				5905	48			SILTY SANDSTONE	Silty Sandstone with some clay - light live gray (5Y5/2), very fine-grained sand, well sorted, sub-angular to sub-rounded, approximately 20% porosity, argillaceous cement, slightly to moderately friable, dominant lithology sand clear quartz with trace iron nodules, trace limonite throughout, trace cross bedding at 47.1-47.2', 10 degree bedding at 47.8-47.9', no apparent fractures, moist, weathered 54% sand, 36% silt, 10% clay
				2.00 /2.00	5904	49			SANDSTONE	Sandstone - dusky yellow (5Y6/2), fine- to very fine-grained sand, well sorted, sub-angular to sub-rounded, approximately 25% porosity, silica cement, highly friable, dominant lithology sand clear quartz with trace dark minerals, trace iron staining on grains, some limonite throughout, abundant limonite at 49.0-49.3', no apparent fractures, moist, weathered 89% sand, 10% silt, 1% clay
					5903	50				

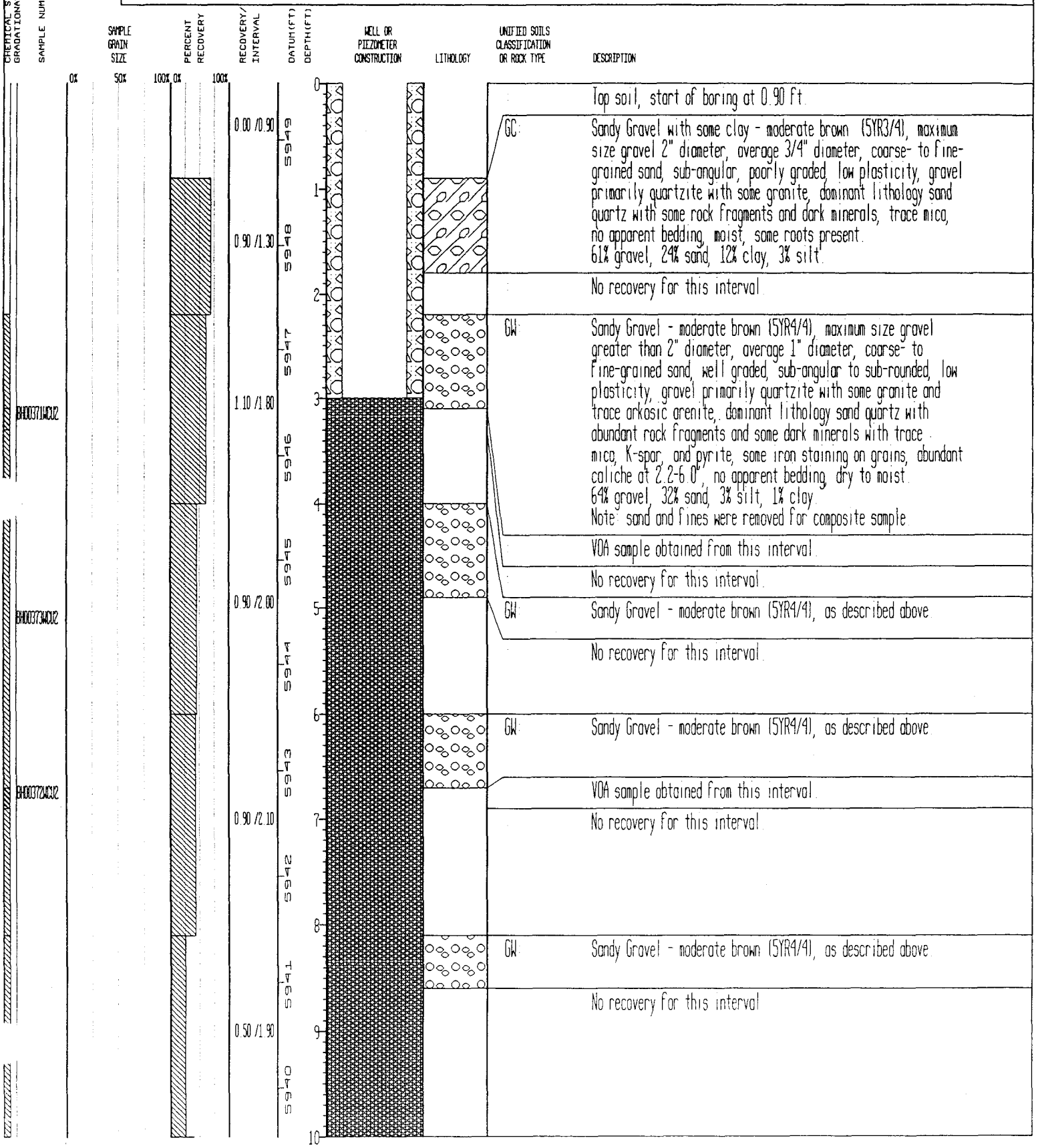
STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 60.0	GROUND ELEVATION (FT): 5952.90	PROJECT NUMBER: 002/RI	LOG OF BORING NUMBER:	
NORTH: 749856.05	AREA: NE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: L.A. GUST	10291	
EAST: 2087180.89	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 12/10/91		

REMARKS: HOLLOW STEM AUGER. BACKFILL MATERIAL: BENTONITE 60.0 FT

DEPTH	CHEMICAL SAMPLE / GRADATIONAL SA.	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
							50				No recovery for this interval
					2.00 /2.00	5902	51			CLAYEY SANDSTONE	Clayey Sandstone - olive gray (5Y3/2), very fine-grained sand, well sorted, sub-angular, approximately 15% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with some dark minerals, some iron staining on grains, some sand rip-up clast throughout, trace clay clasts throughout, some limonite controlled by bedding planes, trace carbonaceous material, thin laminations of sand and clay with 10 degree bedding at 50.0-52.7', some sediment deformation throughout, wavy cross stratification at 52.7-54.0', no apparent fractures, moist, mottled appearance. 48% sand, 15% silt, 37% clay.
		10291-51.8				5901	52				
		BH001954C02			2.00 /2.00	5900	53				
						5899					No recovery for this interval
							54			SANDSTONE	Sandstone with some silt - dusky yellow (5Y6/4), fine- to very fine-grained sand, well sorted, sub-angular to sub-rounded, approximately 25% porosity, silica cement, highly friable, dominant lithology sand clear quartz, some limonite throughout, no apparent bedding or fractures, moist. 91% sand, 8% silt, 1% clay.
					2.00 /2.00	5898	55				
		BH001956C02				5897	56			SILTY CLAYSTONE	Silty Claystone - dark gray (N3), very fine-grained sand, well sorted, sub-angular, approximately 5% porosity, argillaceous cement, non- to slightly friable, dominant lithology sand clear quartz with trace dark minerals, some limonite at 54.3-54.7', trace carbonaceous throughout, blocky-wavy cross stratification at 54.3-57.2', no apparent fractures, moist, weathered at 54.3-54.7', unweathered at 54.7-57.6'. 3% sand, 29% silt, 68% clay.
											VOA sample obtained from this interval
					2.00 /2.00	5896	57			SILTY CLAYSTONE	Silty Claystone - dark gray (N3), as described above
										SILTY SANDSTONE	Silty Sandstone with some clay - dark gray (N3), as described below
		10291-57.8 BH001957C02				5895	58				No recovery for this interval
					2.00 /2.00	5894	59			SILTY SANDSTONE	Silty Sandstone with some clay - dark gray (N3), fine- to very fine-grained sand, well sorted, sub-angular to sub-rounded, approximately 15% porosity, slightly to moderately friable, argillaceous cement, dominant lithology sand clear quartz with some dark minerals, trace carbonaceous material throughout, 10 degree bedding at 57.8-58.9', no apparent fractures, moist, unweathered. 47% sand, 40% silt, 13% clay.
						5893	60				Total depth at 60.0 ft

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 62.0	GROUND ELEVATION (FT): 5949.54	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:
NORTH: 749925.22	AREA: NE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: L.A. GUST	10391
EAST: 2087413.83	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 12/10/91	

REMARKS: SOURCE BOREHOLE, ABANDONED.



STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 62.0	GROUND ELEVATION (FT):	5949.54	PROJECT NUMBER:	OU2/RI
NORTH: 749925.22	AREA: NE TRENCHES	CASING DIAMETER (IN):		GEOLOGIST:	L.A. GUST
EAST: 2087413.83	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	12/10/91
REMARKS: SOURCE BOREHOLE, ABANDONED.					

LOG OF BORING NUMBER

10391

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% – 50% – 100%)	PERCENT RECOVERY (0% – 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
						10			GW	Sandy Gravel - moderate brown (5YR4/4), as described above
	BH00374WC02				5939					VOA sample obtained from this interval
	BH00375WC02			0.80 /2.00		11				No recovery for this interval
					5938					
						12			GW	Sandy Gravel - moderate brown (5YR4/4), as described above
					5937					
				0.80 /2.00		13				No recovery for this interval
					5936					
						14			GW	Sandy Gravel - moderate brown (5YR4/4), as described above
	BH00376WC02				5935					VOA sample obtained from this interval
				0.80 /2.00		15				No recovery for this interval
					5934					
						16			GW	Sandy Gravel - moderate brown (5YR4/4), as described above
					5933					
	BH00377WC02			0.90 /2.00		17				No recovery for this interval
					5932					
						18				No recovery for this interval
					5931					
				0.00 /2.00		19				
					5930					
						20				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 62.0	GROUND ELEVATION (FT): 5949.54	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:	
NORTH: 749925.22	AREA: NE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: L.A. GUST	10391	
EAST: 2087413.83	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 12/10/91		

REMARKS: SOURCE BOREHOLE, ABANDONED.

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					5929	20			GW	Sandy Gravel - moderate brown (5YR4/4), as described above.
				0.50 /2.00						No recovery for this interval.
					5928	21			GW	Sandy Gravel - moderate brown (5YR4/4), as described above Top of bedrock at 22.2 ft.
						22			SILTY SANDSTONE	Silty Sandstone with some clay - pale olive (10Y6/2), fine- to very fine-grained sand, well sorted, sub-angular to sub-rounded, approximately 20% porosity, argillaceous cement, moderately friable, dominant lithology sand clear quartz with some dark minerals, trace iron staining on grains, some limonite and trace carbonaceous material throughout, no apparent fractures, moist, weathered 53% sand, 42% silt, 5% clay
	BH00398WC02 BH00378WC02			1.30 /2.00	5927	23				
					5926					VOA obtained from this interval.
						24				No recovery for this interval.
					5925				SILTY SANDSTONE	Silty Sandstone with some clay - pale olive (10Y6/2) as described above, clay layer with some soft sediment deformation at 24.2-24.3', trace low angle bedding at 29.8-30.0', trace cross bedding at 30.0-30.1'
				2.00 /2.00		25				
					5924					
						26				
					5923					
				2.00 /2.00		27				
					5922					
						28				
					5921					
	H00381WC02			2.00 /2.00		29				
					5920	30				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 62.0	GROUND ELEVATION (FT): 5949.54	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:
NORTH: 749925.22	AREA: NE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: L.A. GUST	10391
EAST: 2087413.83	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 12/10/91	

REMARKS: SOURCE BOREHOLE, ABANDONED.

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		1.20 /2.00	5919	30–31	SANDSTONE	Sandstone with some silt - dusky yellow (5Y6/4) to dark yellowish orange (10YR6/6), medium- to very fine-grained sand, moderately sorted, sub-rounded to rounded, approximately 30% porosity, silica cement, highly friable, dominant lithology sand clear quartz with trace dark minerals, trace iron staining on grains, some limonite and trace carbonaceous material throughout, massive, no apparent bedding or fractures, moist at 30.6-34.6', weathered. 95% sand, 5% silt.
			5918	31–32		No recovery for this interval.
		1.00 /1.00	5917	32–33	SANDSTONE	Sandstone with some silt - dusky yellowish orange (5Y6/4) to dark yellowish orange (10YR6/6), as described above.
	BH00382WD2					VOA sample obtained from this interval.
		0.00 /1.60	5916	33–34	SANDSTONE	Sandstone with some silt - dusky yellowish orange (5Y6/4) to dark yellowish orange (10YR6/6), as described above. No recovery for this interval.
		1.40 /1.40	5915–5914	34–35	SANDSTONE	Sandstone with some silt - dusky yellowish orange (5Y6/4) to dark yellowish orange (10YR6/6), as described above, thin clay laminations at 36.0-36.1', saturated at 34.6-36.7'.
	BH00384WD2	2.00 /2.00	5913–5912	36–37	CLAYEY SANDSTONE	Clayey Sandstone with some silt - olive gray (5Y3/2) to dark yellowish orange (10YR6/6), fine- to very fine-grained sand, sub-angular to sub-rounded, well sorted, approximately 15% porosity, argillaceous cement, slightly to moderately friable, dominant lithology sand clear quartz with trace dark minerals, some iron staining on grains, some limonite throughout, thin clay laminations with very thin laminations of sand with horizontal bedding at 36.7-37.4', clay laminations at 37.7-37.8', 10 degree bedding at 37.4-38.0', trace cross bedding at 37.6', no apparent fractures, saturated, weathered. 45% sand, 22% silt, 33% clay
		2.00 /2.00	5911–5910	38–39	SANDSTONE	Sandstone with some silt - dusky yellow (5Y6/4), medium- to fine-grained sand, well sorted, sub-rounded to rounded, approximately 30% porosity, silica cement, highly friable, dominant lithology sand clear quartz with some dark minerals and trace iron nodules, some limonite throughout, pale olive (10Y6/2) sand lense at 40.0-40.2', increase in clay content at 40.7-41.3', trace 10 degree bedding at 41.8-42.0', no apparent fractures, saturated, weathered. 94% sand, 5% silt, 1% clay

Sample grain size: 0% 50% 100%. Percent recovery: 0% 100%. Well or piezometer construction: 30–40.

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 62.0	GROUND ELEVATION (FT):	5949.54	PROJECT NUMBER:	OU2/RI
NORTH: 749925.22	AREA: NE TRENCHES	CASING DIAMETER (IN):		GEOLOGIST:	L.A. GUST
EAST: 2087413.83	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	12/10/91
REMARKS: SOURCE BOREHOLE, ABANDONED.					

LOG OF BORING NUMBER: 10391

DEPTH	CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			0% 50% 100%	0% 100%							
		BH00385WDU2			2.00 /2.00	5909	40				
						5908	41				
						5907	42				
					1.00 /2.00	5906	43				No recovery for this interval
							44			SANDSTONE	Sandstone with some silt - dusky yellow (5Y6/4), as described above
					2.00 /2.00	5905	45			CLAYEY SANDSTONE	Clayey Sandstone with some silt - olive gray (5Y3/2) to dark yellowish orange (10YR6/6), fine- to very fine-grained sand, moderately sorted, sub-angular to sub-rounded, approximately 20% porosity, argillaceous cement, moderately friable, dominant lithology sand clear quartz with some dark minerals and trace iron nodules, some iron staining on grains, some limonite and trace carbonaceous material throughout, possible dewatering structure or soft sediment deformation with alternating layers of clay, sand and silt at approximately 75 degree angle throughout interval, no apparent fractures, saturated, weathered. 53% sand, 19% silt, 28% clay
						5904	46				
		BH00386WDU2			2.00 /2.00	5903	47			SANDSTONE	Sandstone with some silt - pale olive (10Y6/2) to dusky yellow (5Y6/4), medium- to very fine-grained sand, moderately sorted, sub-rounded to rounded, approximately 25% porosity, silica with trace argillaceous cement, highly friable, dominant lithology sand clear quartz with some dark minerals and trace iron nodules, some iron staining on grains, some limonite and trace carbonaceous material throughout, abundant limonite at 46.2-47.0' and 48.7-48.9', some plant fragments at 46.6', low angle bedding at 45.8-46.0', 10 degree bedding at 46.2-48.2', thin laminations of clay at 47.0-47.1' with trace cross bedding, increase in clay content with some soft sediment deformation at 48.2-48.7', low angle bedding at 48.7-48.9', no apparent fractures, saturated, weathered. 82% sand, 16% silt, 2% clay
						5902	48				
					0.90 /2.00	5901	49				
						5900	50				No recovery for this interval

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 62.0	GROUND ELEVATION (FT):	5949.54	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 749925.22	AREA: NE TRENCHES	CASING DIAMETER (IN):		GEOLOGIST:	L.A. GUST	10391
EAST: 2087413.83	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	12/10/91	

REMARKS: SOURCE BOREHOLE, ABANDONED.

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
				2.00/2.00	5899	50			SILTY SANDSTONE	Silty Sandstone - pale olive (10Y6/2) to dusky yellow (5Y6/4), medium- to fine-grained sand, well sorted, sub-rounded to rounded, approximately 25% porosity, silica with trace argillaceous cement, highly friable, dominant lithology sand clear quartz with some dark minerals and trace mica and iron nodules, some limonite and trace carbonaceous material throughout, trace clay clasts throughout, 1" diameter clay clast at 50.0', trace 10 degree bedding at 50.6-50.8' and 54.9-55.1', no apparent fractures, saturated, weathered, abundant 1/2" diameter sand clasts at 53.8'. 78% sand, 20% silt, 2% clay.
					5898	51				
					5897	52				
	BH00388WC02			2.00/2.00	5896	53				
					5895	54				
				1.10/2.00	5894	55				No recovery for this interval.
									SILTY SANDSTONE	Silty Sandstone - pale olive (10Y6/2) to dusky yellow (5Y6/4), as described above, abundant limonite at 56.0-56.3'
					5893	56			SILTY CLAYSTONE	Silty Claystone with some sand - olive gray (5Y3/2) to dusky yellow (5Y6/4), very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with some dark minerals, abundant iron staining on grains, trace limonite throughout, some carbonaceous material controlled by bedding planes, some clay rip-up clast throughout, thin laminations of clay and sand with abundant soft sediment deformation, 15 degree apparent bedding and trace cross bedding throughout, no apparent fractures, wet, unweathered. 18% sand, 21% silt, 61% clay
				2.00/2.00	5892	57				
					5891	58			SANDY CLAYSTONE	Sandy Claystone with some silt - dark gray (N3), fine- to very fine-grained sand, well sorted, sub-angular, approximately 15% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with some dark minerals, trace carbonaceous material throughout, trace 10 degree bedding throughout, no apparent fractures, wet, unweathered. 25% sand, 9% silt, 56% clay.
	BH00391WC02			2.00/2.00		59				
	BH00389WC02				5890					VOA sample obtained from this interval.
	BH00390WC02					60				VOA duplicate sample obtained from this interval.

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 62.0	GROUND ELEVATION (FT):	5949.54	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 749925.22	AREA: NE TRENCHES	CASING DIAMETER (IN):		GEOLOGIST:	L.A. GUST	10391
EAST: 2087413.83	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	12/10/91	

REMARKS: SOURCE BOREHOLE, ABANDONED

CHEMICAL SAMPL / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%	1.80 /2.00	5889 5888 5887 5886 5885 5884 5883 5882 5881 5880	60 61 62 63 64 65 66 67 68 69 70			SANDY CLAYSTONE	Sandy Claystone with some silt - dark gray (N3), as described above, increase sand content at 61.5-61.8'
										No recovery for this interval.
										Total depth at 62.0 ft.

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 49.0	GROUND ELEVATION (FT): 5956.85	PROJECT NUMBER: OU2RI	LOG OF BORING NUMBER:	
NORTH: 749661.53	AREA: NE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: L.A. GUST	10491	
EAST: 2087088.31	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 12/11/91		
REMARKS: HOLLOW STEM AUGER		BACKFILL MATERIAL: BENTONITE 49.0 FT. - 3.0 FT.			

DEPTH	CHEMICAL SAMPL GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			0% 50% 100%	0% 100%							Top soil, start of boring at 0.90 ft.
					0.00 /0.90	5956	0			GC:	Sandy Gravel with some clay -brownish black (5YR4/1), maximum gravel size 1 1/2" diameter, average 3/4" diameter, coarse- to fine-grained sand, well graded, sub-rounded, low plasticity, dominant lithology gravel quartzite with some granite, dominant lithology sand quartz with some rock fragments and dark minerals, abundant caliche throughout, no apparent bedding, moist, some roots present. 63% gravel, 24% sand, 2% silt, 11% clay.
					1.10 /1.10	5955	1				
							2			GC:	Clayey Gravel with some sand - pinkish gray (5YR8/1), maximum size gravel 1 1/2" diameter, average 1" diameter, poorly graded, sub-angular, low plasticity, gravel primarily quartzite, dominant lithology sand quartz with some rock fragments, abundant caliche throughout and coating on gravel, no apparent bedding, dry to moist. 58% gravel, 9% sand, 2% silt, 31% clay.
					1.60 /2.00	5954	3				
		BH00199WCU2									VOA sample obtained from this interval.
						5953					No recovery for this interval.
							4			GW:	Sandy Gravel - pinkish gray (5YR8/1) to moderate brown (5YR3/4), maximum size gravel greater than 2" diameter, average 1 1/2" diameter, coarse- to fine-grained sand, well graded, angular to sub-angular, low plasticity, gravel primarily quartzite, dominant lithology sand quartz with abundant rock fragments with some dark minerals and trace mica and K-spar, abundant caliche throughout, no apparent bedding, dry to moist. 69% gravel, 27% sand, 3% silt, 1% clay.
		BH00200WCU2			1.20 /2.20	5952	5				
						5951	6				No recovery for this interval.
										GW:	Sandy Gravel - pinkish gray (5YR8/1) to moderate brown (5YR3/4), as described above.
		BH00201WCU2			0.80 /1.80	5950	7				VOA sample obtained from this interval.
											No recovery for this interval.
						5949				GW:	Sandy Gravel - pinkish gray (5YR8/1) to moderate brown (5YR3/4), as described above.
							8			GW:	Sandy Gravel - moderate brown (5YR4/4), maximum size gravel 2" diameter, average 1" diameter, coarse- to fine-grained sand, well graded, sub-angular to rounded, low plasticity, gravel primarily quartzite with some granite and trace weathered sandstone, dominant lithology sand rock fragments with abundant quartz with trace dark minerals, mica, K-spar and pyrite, trace caliche and limonite throughout, some iron staining throughout, no apparent bedding, moist. 62% gravel, 35% sand, 2% silt, 1% clay.
					1.50 /2.00	5948	9				
						5947	10				No recovery for this interval.

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 49.0	GROUND ELEVATION (FT): 5956.85	PROJECT NUMBER: OU2RI	LOG OF BORING NUMBER:
NORTH: 749661.53	AREA: NE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: L.A. GUST	10491
EAST: 2087088.31	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 12/11/91	
REMARKS: HOLLOW STEM AUGER		BACKFILL MATERIAL: BENTONITE 49.0 FT. - 3.0 FT.		

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
				10	GW	Sandy Gravel - moderate brown (5YR4/4), as described above.
	BH00202WC02					VOA sample obtained from this interval.
	BH00203WC02	0.80 /2.00	5946	11		No recovery for this interval.
			5945	12	GW	Sandy Gravel - moderate brown (5YR4/4), as described above.
		1.00 /2.00	5944	13		No recovery for this interval.
			5943	14	GW	Sandy Gravel - moderate brown (5YR4/4), as described above
		0.60 /2.00	5942	15		No recovery for this interval.
			5941	16	GW	Sandy Gravel - moderate brown (5YR4/4), as described above.
	BH00204WC02 BH00205WC02	1.00 /1.60	5940	17		VOA sample obtained from this interval.
						No recovery for this interval
		0.40 /0.40	5939	18	GW	Sandy Gravel - moderate brown (5YR4/4), as described above
	00206WC02	1.20 /2.00	5938	19		VOA sample obtained from this interval
						No recovery for this interval
			5937	20		

Scale: 0% 50% 100% 0% 100%

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 49.0	GROUND ELEVATION (FT): 5956.85	PROJECT NUMBER: OU2RI	LOG OF BORING NUMBER:	
NORTH: 749661.53	AREA: NE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: L.A. GUST	10491	
EAST: 2087088.31	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 12/11/91		
REMARKS: HOLLOW STEM AUGER.		BACKFILL MATERIAL: BENTONITE 49.0 FT. - 3.0 FT.			

DEPTH	CHEMICAL SAMPL. GRADATIONAL SA.	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					0.00 /2.00	5936	20–21				
					0.90 /1.00	5935	22			GW	Sandy Gravel - moderate brown (5YR4/4), as described above, increase in iron staining and sand at 22.2-22.9'
		BH00209WC02				5934	23				No recovery for this interval
		BH00208WC02			0.80 /1.00	5933				GW	Sandy Gravel - moderate brown (5YR4/4), as described above
					0.80 /0.90	5932	24				VOA sample obtained from this interval
											No recovery for this interval
					0.90 /1.10	5931	25			GW	Sandy Gravel - moderate brown (5YR4/4), as described above, trace pale olive (10Y6/2) clay at 24.0-24.8'
											No recovery for this interval
							26			GW	Sandy Gravel - moderate brown (5YR4/4), as described above
					1.30 /2.00	5930	27				No recovery for this interval
		BH00210WC02								GW	Sandy Gravel - moderate brown (5YR4/4), as described above, some carbonaceous material at 26.0-27.3'
						5929	28				VOA sample obtained from this interval
		BH00212WC02			0.10 /2.00	5928	29				No recovery for this interval Based on nearby well control, top of bedrock placed at 30.0 ft.
						5927	30				No recovery for this interval

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 49.0	GROUND ELEVATION (FT): 5956.85	PROJECT NUMBER: OU2RI	LOG OF BORING NUMBER:	
NORTH: 749661.53	AREA: NE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: L.A. GUST	10491	
EAST: 2087088.31	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 12/11/91		
REMARKS: HOLLOW STEM AUGER.		BACKFILL MATERIAL: BENTONITE 49.0 FT. - 3.0 FT.			

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	BH00211MC02			2.00 /2.00	5926	30			SILTY SANDSTONE	Silty Sandstone with some clay - dusky yellow (5Y6/4), very fine-grained sand, well sorted, sub-angular, approximately 15% porosity, argillaceous cement, slightly to moderately friable, dominant lithology sand clear quartz with trace dark minerals, trace iron staining on grains, some limonite throughout, concreation like iron nodules at 30.6-31.0', thin laminations of sand, silt and clay controlling carbonaceous material along bedding planes at 30.0-30.9', some soft sediment deformation throughout, vertical healed fracture with iron at 31.0-31.2', 75-90 degree cracks filled with gray material at 31.2-31.8', dry to moist, weathered. 48% sand, 44% silt, 8% clay.
					5925	31				
						32				VOA sample obtained from this interval. Note: Cobble pushed from 28.0 ft.
				2.00 /2.00	5924	33			SANDY CLAYSTONE	Sandy Claystone/Silty Sandstone with interbedded sands and clay layers - dusky yellow (5Y6/4) to olive gray (5Y3/2), very fine-grained sand, well sorted, sub-angular to sub-rounded, approximately 10%-20% porosity, slightly to moderately friable, argillaceous cement, dominant lithology sand clear quartz with some dark minerals and trace mica, some limonite and carbonaceous material throughout, some clay and sand clasts throughout, trace horizontal bedding controlling carbonaceous along bedding planes at 33.3-33.7', thin laminations of clay at 33.9-34.0' and 34.1-34.2', horizontal bedding at 34.5-38.7', olive gray clay rip-up clast banded by limonite at 35.0-35.3', no apparent fractures, moist, weathered. CS: 27% sand, 12% silt, 61% clay. SS: 57% sand, 24% silt, 19% clay.
					5923	34				
	BH00214MC02				5922	35				
				2.50 /3.00	5921	36				
	BH00213MC02									VOA sample obtained from this interval.
										No recovery for this interval.
					5920	37			SANDY CLAYSTONE	Sandy Claystone/Silty Sandstone with interbedded sands and clay layers - dusky yellow (5Y6/4) to olive gray (5Y3/2), as described above, clay layer at 37.5-37.6' and 38.1-38.6', low angle bedding at 38.7-39.0', iron nodules at 38.6'
				1.00 /1.00	5919					
						38			SILTY SANDSTONE	Silty Sandstone - pale olive (10Y6/2), fine to very fine-grained sand, moderate to well sorted, sub-angular to sub-rounded, approximately 20% porosity, argillaceous cement, moderately friable, dominant lithology sand clear quartz with some dark minerals and trace mica, some iron staining on grains, some limonite throughout, trace cross-bedding at 39.0-40.7', no apparent fractures, moist, weathered. 59% sand, 37% silt, 4% clay.
				1.00 /1.00	5918					
						39				
				1.00 /1.00	5917					
	BH00215MC02					40				VOA sample obtained from this interval.

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 49.0	GROUND ELEVATION (FT): 5956.85	PROJECT NUMBER: OU2RI	LOG OF BORING NUMBER:	
NORTH: 749661.53	AREA: NE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: L.A. GUST	10491	
EAST: 2087088.31	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 12/11/91		
REMARKS: HOLLOW STEM AUGER.		BACKFILL MATERIAL: BENTONITE 49.0 FT - 3.0 FT.			

CHEMICAL SAMPL / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% – 50%)	PERCENT RECOVERY (100% – 0% – 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	BH00216WC02			2.00 /2.00	5916	41			SILTY SANDSTONE	Silty Sandstone - pale olive (10Y6/2), as described above, abundant limonite at 42.0-42.4', trace ripples and cross-bedding at 41.1-41.8', trace horizontal bedding at 41.8-42.8', some carbonaceous material along bedding planes at 42.7-42.8'.
				2.00 /2.00	5915	42			SANDY CLAYSTONE	Sandy Claystone with some silt - olive gray (5Y3/2), very fine-grained sand, well sorted, sub-angular, approximately 15% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with some dark minerals and trace mica, some iron staining on grains, some sand clasts throughout, trace iron nodules throughout, some horizontal bedding controlling some limonite and carbonaceous material throughout, some soft sediment deformation throughout, no apparent fractures, slightly weathered, moist. 33% sand, 14% silt, 53% clay.
				2.00 /2.00	5914	43				
	BH00217WC02				5913	44				VOA sample obtained from this interval.
				2.00 /2.00	5912	45			SANDY SILTSTONE	Sandy Siltstone with some clay - dark gray (N3), very fine-grained sand, well sorted, sub-angular, approximately 12% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with some dark minerals, some clay clasts throughout, trace carbonaceous throughout, increase in sand at 47.0-47.5', low angle bedding with trace cross-bedding throughout, moist, unweathered, increase in clay content at 45.7-45.8', 46.4-46.8' and 48.3-48.5', thin laminations of silt and clay at 48.7-48.9', 45 degree sandstone/claystone contact at 47.9', possible fault or fracture. 23% sand, 60% silt, 17% clay.
				2.00 /2.00	5911	46				
				2.00 /2.00	5910	47				
					5909	48				
				1.00 /1.00	5908	49				Total depth at 49.0 ft.
					5907	50				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 18.0	GROUND ELEVATION (FT): 5946.76	PROJECT NUMBER: OU2RI	LOG OF BORING NUMBER:	
NORTH: 749624.52	AREA: SE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: J.P. O'BRIEN	10591	
EAST: 2087951.14	LOCATOR NUMBER: 613	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 02/04/92		
REMARKS:					

DEPTH	CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
							0				Top soil, start of boring at 0.90 ft.
					1.10 /2.00	5946	1			GM	Sandy Gravel with some silt and clay - dusky brown (5YR2/2), maximum gravel diameter .13', avgerage .07', sand is very fine- to coarse-grained, well graded, angular to sub-rounded, low plasticity, gravel is primarily quartzite with some granite at 1'.3', sand contains abundant quartz, carbonaceous/organic material, some rock fragments, calcrete, feldspar, trace mica, iron staining, increased caliche at 1.2'-1.6', calcrete nodules throughout, paleosoil horizon with calcrete pebbles at 1.7', moist. 43% gravel, 31% sand, 17% silt, 9% clay
						5945	2				
					0.00 /2.00	5944	3				No recovery for this interval
						5943	4			GC	Sandy Gravel with some clay - very pale orange (10YR8/2), as described below
											No recovery for this interval
					0.30 /2.00	5942	5				
		EH00466WC02				5941	6			GC	Sandy Gravel with some clay - very pale orange (10YR8/2), maximum gravel diameter > .25', average > .25', very fine- to coarse-grained sand, well graded, angular to sub-angular, low plasticity, gravel is primarily quartzite, some lineated (micaceous) quartzite at 4.2-4.6', sand contains abundant quartz, calcrete/caliche, some rock fragments, iron staining trace mica, dark minerals, no apparent bedding, dry. 64% gravel, 24% sand, 5% silt, 7% clay. VOA sample obtained from this interval
					0.20 /2.00	5940	7				
						5939	8				No recovery for this interval
		EH00465WC02								SC	Gravely Sand with some clay and silt - moderate yellowish brown (10YR5/4), maximum gravel diameter .18', average .1', very fine- to coarse-grained sand, well graded, sub-angular to sub-rounded, moderate plasticity, gravel is primarily quartzite, with trace silty arkosic arenite at approximately 8.5', sand contains abundant quartz, some rock fragments, dark minerals. 31% gravel, 35% sand, 14% silt, 20% clay
					1.30 /2.00	5938	9				No recovery for this interval
						5937	10				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 18.0	GROUND ELEVATION (FT): 5946.76	PROJECT NUMBER: OU2RI	LOG OF BORING NUMBER:	
NORTH: 749624.52	AREA: SE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: J.P. O'BRIEN	10591	
EAST: 2087951.14	LOCATOR NUMBER: 613	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 02/04/92		
REMARKS:					

DEPTH	CHEMICAL SAMPLE GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			0% 50%	100% 0% 100%			10			SC:	Gravely Sand with some clay and silt - moderate yellowish brown (10YR5/4), as described above, feldspar, iron stain, trace mica, no apparent bedding, dry.
		BH00468WC02			0.80 /2.00	5936	11				VOA sample obtained from this interval.
						5935	12				No recovery for this interval. Top of bedrock at 12.0 ft.
					2.00 /2.00	5934	13			SANDY CLAYSTONE:	Sandy Claystone - light olive gray (5Y5/2), very fine- to fine-grained, well sorted, sub-rounded to rounded, approximately 5% porosity, argillaceous cement, slightly friable, abundant quartz, some dark minerals, iron staining, faintly laminated to mottled, faint iron nodules throughout, dry. 34% sand, 2% silt, 64% clay.
						5933	14				
					2.00 /2.00	5932	15				
		BH00469WC02 BH00469WC02				5931	16				VOA sample obtained from this interval.
					2.00 /2.00	5930	17			SANDY CLAYSTONE:	Sandy Claystone-light olive gray (5Y5/2), as described above.
		BH00470WC02 BH00471WC02				5929	18				VOA sample obtained from this interval. VOA sample obtained from this interval. Total depth at 18.0 ft.
						5928	19				
						5927	20				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 48.0	GROUND ELEVATION (FT): 5941.24	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:
NORTH: 749879.68	AREA: SE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: J.P. O'BRIEN	10691
EAST: 2088379.85	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 01/13/92	
REMARKS: HOLLOW STEM AUGER.		BACKFILL MATERIAL: BENTONITE 48.0 FT. - 3.0 FT.		

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%							Top soil, start of boring at 0.90 ft.
				0.90 /0.90	5941	0			GW	Sandy Gravel with some silt - dusky brown (5YR2/2), maximum gravel diameter .15', average .05', fine- to coarse-grained sand, well graded, angular to sub-rounded, low plasticity, gravel primarily quartzite and caliche/calcrete, sand contains abundant carbonaceous/organic material, rock fragments, quartz, some caliche, trace mica, thin beds of imbricated calcrete pebbles, bedded material displays sharp upper and lower contacts, moist. 55% gravel, 36.5% sand, 7% silt, 1.5% clay
				1.00 /1.10	5940	1				
					5939	2			SP	Sand with some gravel and clay - moderate orange pink (5YR8/4), maximum gravel diameter >.25', average .05, very fine- to coarse-grained sand, poorly graded, sub-angular to sub-rounded, low to medium plasticity, gravel primarily quartzite and calcrete, sand contains abundant calcrete, caliche and quartz, some rock fragments, trace carbonaceous material and feldspar, laminated to thinly bedded at 1.3-2.0', oxidized contacts - possible paleo soil horizons at 1.3-1.9', moist. 8% gravel, 84% sand, 1% silt, 7% clay
	BH00106WC02			1.00 /2.00	5938	3				
										VOA sample obtained from this interval
					5937	4				No recovery for this interval
				0.40 /1.00					SP	Sand with some gravel and clay - moderate orange pink (5YR8/4), as described above, some lineated/foliated phyllite and weathered arkosic arenite at 4.2-4.4'
	BH00107WC02				5936	5				No recovery for this interval
				0.50 /1.00					GW	Sandy Gravel - grayish orange (10YR7/4) to dark yellowish orange (10YR6/6), as described below
										No recovery for this interval
					5935	6			GW	Sandy Gravel - grayish orange (10YR7/4) to dark yellowish orange (10YR6/6), maximum gravel diameter >.25', average .09', very fine-to coarse-grained sand, well graded, sub-angular to sub-rounded, low plasticity, gravel primarily quartzite, sand contains abundant quartz, rock fragments, some iron staining, feldspar and dark minerals, trace mica and caliche, thickly laminated caliche/calcrete bearing horizon at 6.7', moist. 60% gravel, 34% sand, 5% silt, 1% clay
	BH00108WC02			0.80 /2.00	5934	7				
										VOA sample obtained from this interval
					5933	8				No recovery for this interval
									GW	Sandy Gravel - grayish orange (10YR7/4) to dark yellowish orange (10YR6/6), as described above
				0.40 /2.00	5932	9				No recovery for this interval
						10				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 48.0	GROUND ELEVATION (FT): 5941.24	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:
NORTH: 749879.68	AREA: SE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: J.P. O'BRIEN	10691
EAST: 2088379.85	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 01/13/92	
REMARKS: HOLLOW STEM AUGER.		BACKFILL MATERIAL: BENTONITE 48.0 FT. - 3.0 FT.		

DEPTH	CHEMICAL SAMPL GRADATIONAL SA.	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			0% 50% 100%	0% 100%							
					0.40 /0.80	5931	10			GW	Sandy Gravel - grayish orange (10YR7/4) to dark yellowish orange (10YR6/6), as described above, some lineated/foliated phyllite at 10.3', trace oxidized diorite at 10.3' and limonite staining on clasts.
		BH00410WC02									No recovery for this interval.
		BH00409WC02			0.80 /1.20	5930	11			GW	Sandy Gravel - grayish orange (10YR7/4) to dark yellowish orange (10YR6/6), as described above.
											VOA sample obtained from this interval.
											No recovery for this interval.
						5929	12			GW	Sandy Gravel - grayish orange (10YR7/4) to dark yellowish orange (10YR6/6), as described above, some lineated/foliated phyllite at 12.7'.
					1.00 /2.00	5928	13				No recovery for this interval.
										GW	Sandy Gravel - grayish orange (10YR7/4) to dark yellowish orange (10YR6/6), as described above, some lineated/foliated phyllite at 14.1'.
					0.40 /0.70	5927	14				No recovery for this interval.
		BH00411WC02			0.60 /1.30	5926	15			GW	Sandy Gravel - grayish orange (10YR7/4) to dark yellowish orange (10YR6/6), as described above, increased sand content and clast of feldspathic litharenite at 14.8'.
											VOA sample obtained from this interval.
											No recovery for this interval.
		BH00412WC02			2.00 /2.00	5925	16			SC	Clayey Sand with some silt - light brown (5YR5/6), maximum gravel diameter > .25', average .04', very fine- to coarse-grained sand, well graded, sub-angular to sub-rounded, medium plasticity, gravel primarily calcrete and quartzite, some silty claystone, possibly re-worked bedrock, sand contains abundant quartz, some rock fragments, feldspar, iron staining and caliche, trace dark minerals, mica, and carbonaceous material moist, increased sand content at 18.0-18.2', rounded > .25' quartzite clast at 18.3-18.6'. 3% gravel, 77% sand, 8% silt, 12% clay
						5924	17				
						5923	18				
					2.00 /2.00	5922	19				
		BH00413WC02					20				VOA sample obtained from this interval.

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 48.0	GROUND ELEVATION (FT): 5941.24	PROJECT NUMBER: 002/RI	LOG OF BORING NUMBER:	
NORTH: 749879.68	AREA: SE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: J.P. O'BRIEN	10691	
EAST: 2088379.85	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 01/13/92		
REMARKS: HOLLOW STEM AUGER		BACKFILL MATERIAL: BENTONITE 48.0 FT. - 3.0 FT.			

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			5921	20	SC	Clayey Sand with some silt - light brown (5YR5/6), as described above.
		2.00 /2.00	5920	21	SC	Clayey Sand - moderate yellowish brown (10YR5/4), very fine- to coarse-grained sand, well graded, sub-angular to rounded, medium to high plasticity, sand contains abundant quartz, some iron staining, rock fragments, feldspar, trace carbonaceous material and mica, laminated, laminea appear to be alternating alluvial material and reworked bedrock, moist. 1% gravel, 57% sand, 5% silt, 37% clay.
			5919	22	SC	Clayey Sand with some gravel - moderate reddish brown (10R4/6), maximum gravel diameter .05', average .01', fine- to coarse-grained sand, well graded, sub-angular to sub-rounded, medium to high plasticity, gravel primarily quartzite with some caliche nodules, sand contains abundant quartz, some rock fragments, feldspar, iron staining, trace caliche, laminated and mottled with grayish yellow green (5GY7/2) silty clay, reworked bedrock, moist. 6% gravel, 64% sand, 5% silt, 25% clay.
	BH00415WC02	2.00 /2.00	5918	23		
	BH00414WC02					VOA sample obtained from this interval.
			5917	24	SC	Clayey Sand with some gravel - moderate reddish brown (10R4/6), as described above, increased sand content, gravel clast size and degree of rounding at 24.0-25.3'
		1.40 /1.40	5916	25		
		0.60 /0.60	5915	26	GW	Sandy Gravel - dark yellowish orange (10YR6/6) to moderate yellowish brown (10YR5/4), maximum gravel diameter > .25', average .09', fine- to coarse- grained sand, well graded, sub-angular to sub-rounded, low plasticity, gravel primarily quartzite, some arkosic arenite, sand contains abundant quartz, some rock fragments, iron staining, feldspar, dark minerals, trace mica, no apparent bedding, moist. 57% gravel, 35% sand, 5% silt, 3% clay.
	BH00417WC02	1.00 /2.00	5914	27		VOA sample obtained from this interval.
						No recovery for this interval.
			5913	28	GW	Sandy Gravel - dark yellowish orange (10YR6/6) to moderate yellowish brown (10YR5/4), as described above, > .25' clast of arkosic arenite at 28.0-28.3'.
	BH00419WC02	1.20 /2.00	5912	29		
						No recovery for this interval.
				30		

SAMPLE GRAIN SIZE: 0% 50% 100%
PERCENT RECOVERY: 0% 100%
WELL OR PIEZOMETER CONSTRUCTION
LITHOLOGY

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 48.0	GROUND ELEVATION (FT): 5941.24	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:	
NORTH: 749879.68	AREA: SE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: J.P. O'BRIEN	10691	
EAST: 2088379.85	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 01/13/92		
REMARKS: HOLLOW STEM AUGER		BACKFILL MATERIAL: BENTONITE 48.0 FT. - 3.0 FT.			

CHEMICAL SAMPL / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%							
	BH00418WCU2			0.80 /2.00	5911	30			SC	Clayey Sand with some gravel - moderate yellowish brown (10YR5/4), maximum gravel diameter .1', average .03', very fine- to coarse-grained sand, well graded, gravel is rounded, sand is sub-angular to sub-rounded, medium plasticity, gravel primarily quartzite, phyllite and some clasts of silty clay (re-worked bedrock), sand contains abundant quartz, some feldspar, rock fragments, trace dark minerals, v-shaped scour and fill structure at 32.1', approximately 1.5'x 2.5' i.e. small incised channel, moist. 8% gravel, 65% sand, 7% silt, 20% clay
					5910	31				
										VOA sample obtained from this interval
					5909	32				No recovery for this interval
									SC	Clayey Sand with some gravel - moderate yellowish brown (10YR5/4), as described above, scour and fill structure at 32.1'
				2.00 /2.00	5908	33			SC	Clayey Sand - moderate brown (5YR4/4), maximum gravel diameter .14', average .05', very fine- to coarse-grained sand, well graded, angular to sub-rounded, medium plasticity, gravel is primarily quartzite, sand contains abundant quartz, some feldspar, trace carbonaceous material, dark minerals and mica, thin sandy bed at 35.0-35.1', moist. 1% gravel, 63% sand, 1% silt, 35% clay
					5907	34				
	BH00421WCU2			2.00 /2.00	5906	35				VOA sample obtained from this interval
									SC	Clayey Sand - moderate brown (5YR4/4), as described above, increased sand and clast content at 36.0-36.8', increased gravel content at 36.0-37.0'
	BH00420WCU2									No recovery for this interval
					5905	36			GW	Sandy Gravel with some silt - dark yellowish orange (10YR6/6), maximum gravel diameter .16', average .07', very fine- to coarse-grained sand, well graded, angular to sub-rounded, low plasticity, gravel primarily quartzite, some granite, sand contains abundant quartz, some iron staining, feldspar, trace carbonaceous material, mica, no apparent bedding, moist. 59% gravel, 32% sand, 6% silt, 3% clay
				0.70 /2.00	5904	37				
										No recovery for this interval
									GW	Sandy Gravel with some silt - dark yellowish orange (10YR6/6), as described above
					5903	38				VOA sample obtained from this interval
				0.70 /1.00						
					5902	39				
	BH00422WCU2			0.70 /1.00						
						40				No recovery for this interval

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 48.0	GROUND ELEVATION (FT): 5941.24	PROJECT NUMBER: 002/RI	LOG OF BORING NUMBER:	
NORTH: 749879.68	AREA: SE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: J.P. O'BRIEN	10691	
EAST: 2088379.85	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 01/13/92		
REMARKS: HOLLOW STEM AUGER.		BACKFILL MATERIAL: BENTONITE 48.0 FT. - 3.0 FT.			

CHEMICAL SAMPLE / GRADATIONAL SA.	SAMPLE NUMBER	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			5901	40	GW:	Sandy Gravel with some silt - dark yellowish orange (10YR6/6), as described above. Top bedrock at 40.2 ft
	BH00424WC02	2.00 /2.00	5900	41	SANDY CLAYSTONE	Sandy Claystone with some silt - light olive gray (5Y5/2), very fine-grained, very well sorted, angular, approximately 3% to 5% porosity, argillaceous cement, slightly friable, abundant quartz, trace iron staining, mica, sharp erosional contact with overlying units, mottled to irregularly laminated, some carbonaceous material along laminea, moist. 17% sand, 8% silt, 75% clay
	BH00425WC02		5899	42		VOA sample obtained from this interval
					SANDY CLAYSTONE	Sandy Claystone with some silt - light olive gray (5Y5/2), as described above.
		2.00 /2.00	5898	43		
	BH00427WC02			44		VOA sample obtained from this interval.
			5897		SANDY CLAYSTONE	Sandy Claystone with some silt - light olive gray (5Y5/2), as described above.
					SANDY CLAYSTONE	Sandy Claystone - grayish yellow (5Y8/4), as described below, at 46.7' color change to laminated yellow gray (5Y7/2) to light olive gray (5Y5/2).
		1.20 /2.00	5896	45		No recovery for this interval.
	BH00426WC02		5895	46	SANDY CLAYSTONE	Sandy Claystone - grayish yellow (5Y8/4), very fine-grained, very well sorted, angular, approximately 3-5% porosity, argillaceous cement, slightly friable, abundant quartz, trace iron staining, moderate to thinly laminated, moist. 28% sand, 3% silt, 69% clay
		2.00 /2.00	5894	47		
			5893	48		Total depth at 48.0 ft
			5892	49		
				50		

Sample grain size: 0% 50% 100%. Percent recovery: 0% 100%.

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 50.0	GROUND ELEVATION (FT): 5945.26	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:	
NORTH: 749598.48	AREA: SE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: J.P. O'BRIEN	10791	
EAST: 2088380.67	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 01/08/92		
REMARKS: HOLLOW STEM AUGER.		BACKFILL MATERIAL: BENTONITE 50.0 FT. - 0.0 FT.			

CHEMICAL SAMPL / GRADATIONAL S	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
						0				Top soil, start of boring at 0.90 ft.
				0.00 /0.90	5945				SM	Gravelly Sand with some silt - grayish brown (5YR3/2), maximum diameter > .25', average size .05', very fine- to coarse-grained sand, well graded, sub-angular to sub-rounded, medium plasticity, > .25' sandy claystone (bedrock) clasts grayish yellow (5Y8/4), quartzite, arkosic arenite and caliche, sand contains abundant quartz, rock fragments, some feldspar and dark minerals, trace caliche and mica, moist, some roots. 18% gravel, 71% sand, 8% silt, 3% clay
						1				
				0.80 /2.10	5944					No recovery for this interval.
					5943	2				
						3				No recovery for this interval.
				0.00 /1.00	5942					
					5941	4				
				0.00 /2.00	5940	5				
					5939	6			SW	Gravelly Sand with some clay - very pale orange (10YR8/2), maximum gravel diameter .15', average .09', very fine- to coarse-grained sand, well graded, sub-angular to rounded, low plasticity, gravel primarily caliche and quartzite, sand contains abundant quartz and caliche, some rock fragments, trace feldspar and dark minerals, no apparent bedding, moist. 33% gravel, 58% sand, 3% silt, 6% clay
	EH00264WC02			1.00 /2.00	5938	7				VOA sample obtained from this interval.
										No recovery for this interval.
					5937	8			SW	Gravelly Sand with some clay - very pale orange (10YR8/2), as described above.
	EH00266WC02									VOA sample obtained from this interval.
				0.50 /2.00	5936	9				No recovery for this interval.
						10				

STATE PLANE COORDINATE		TOTAL DEPTH (FT) 50.0	GROUND ELEVATION (FT) 5945.26	PROJECT NUMBER 002/RI	LOG OF BORING NUMBER
NORTH:	749598.48	AREA: SE TRENCHES	CASING DIAMETER (IN)	GEOLOGIST: J.P. O'BRIEN	10791
EAST:	2088380.67	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN) 6.5	DATE DRILLED: 01/08/92	
REMARKS: HOLLOW STEM AUGER			BACKFILL MATERIAL: BENTONITE 50.0 FT. - 0.0 FT.		

CHEMICAL SAMPLE / GRADATIONAL SA.	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
				0.00/2.00	5935	10				
					5934	11				
					5933	12				
				0.00/2.00	5932	13				
					5931	14			SM	Sand with some silt - light brown (5YR5/6), maximum gravel diameter .05', average .01', fine- to coarse-grained sand, sand (minus fines) is poorly graded otherwise well graded, sub-rounded to sub-angular, medium plasticity, gravel primarily quartzite, sand contains abundant quartz, some feldspar, caliche and iron staining, trace dark minerals, mica and rock fragments, carbonaceous material throughout, laminated, some silty clay laminations, trace magnesium oxide, moist. 2% gravel, 84% sand, 9% silt, 5% clay
				2.00/2.00	5930	15				
	BH00267WC02									VOA sample obtained from this interval.
					5929	16			SW	Gravelly Sand - light brown (5YR5/6), maximum gravel diameter > 25', average .1', fine- to coarse-grained sand, well graded, angular to sub-rounded, low plasticity, gravel primarily quartzite, some greenish gray silty clay laminea trace arkosic arenite, sand contains abundant quartz, some iron staining, feldspar, mica, rock fragments and carbonaceous material, trace dark minerals, no apparent bedding, moist. 41% gravel, 56% sand, 2% silt, 1% clay
	BH00265WC02			1.20/2.00	5928	17				
										No recovery for this interval.
					5927	18			SW	Gravelly Sand - light brown (5YR5/6), as described above
	BH00258WC02									VOA sample obtained from this interval
				0.80/2.00	5926	19				No recovery for this interval
						20				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 50.0	GROUND ELEVATION (FT): 5945.26	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:	
NORTH: 749598.48	AREA: SE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: J.P. O'BRIEN	10791	
EAST: 2088380.67	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 01/08/92		
REMARKS: HOLLOW STEM AUGER.		BACKFILL MATERIAL: BENTONITE 50.0 FT. - 0.0 FT.			

DEPTH	CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			0% 50% 100%	0% 100%			20			SW:	Gravelly Sand - light brown (5YR5/6), as described above, fractured clast of granite at 20.0-20.3'.
					1.80 /2.00	5925	21				
						5924	22				No recovery for this interval.
						5923				SW:	Gravelly Sand - light brown (5YR5/6), as described above.
		BH00271WC02			1.80 /2.00	5922	23				
		BH00270WC02									VOA sample obtained from this interval.
											No recovery for this interval.
						5921	24			SW:	Gravelly Sand - light brown (5YR5/6), as described above, phyllite clasts at 24.6'.
					1.20 /2.00	5920	25				
											No recovery for this interval.
						5919	26			SW:	Gravelly Sand - light brown (5YR5/6), as described above.
		BH00272WC02									No recovery for this interval.
					0.60 /2.00	5918	27				
						5917	28			SW:	Gravelly Sand - light brown (5YR5/6), as described above.
											VOA sample obtained from this interval.
		BH00274WC02			0.60 /2.00	5916	29				No recovery for this interval.
							30				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 50.0	GROUND ELEVATION (FT): 5945.26	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:	
NORTH: 749598.48	AREA: SE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: J.P. O'BRIEN	10791	
EAST: 2088380.67	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 01/08/92		
REMARKS: HOLLOW STEM AUGER.		BACKFILL MATERIAL: BENTONITE 50.0 FT. - 0.0 FT.			

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
				2.00/2.00	5915	30			SC	Clayey Sand with some gravel and silt - moderate yellowish brown (10YR5/4), maximum gravel diameter .2', average .02', fine to coarse-grained sand, well graded, sub-angular to sub-rounded, medium plasticity, gravel primarily quartzite, sand contains abundant quartz, some feldspar and rock fragments, trace mica, iron staining and carbonaceous matter, moist, crudely stratified, increased clay and carbonaceous material along stratified planes at 31.7-32.0'. 7% gravel, 76% sand, 6% silt, 11% clay
	BH00273WC02				5914	31				VOA sample obtained from this interval.
				2.00/2.00	5913	32			SC	Sand with some clay - interlaminated silty clay, light olive gray (5Y5/2) and alluvium, light brown (5YR5/6), maximum gravel diameter .05', average .01', fine- to coarse-grained sand, well graded, angular to rounded, medium plasticity, gravel primarily caliche and quartzite, trace arkosic arenite, sand contains abundant quartz (mostly frosted) rock fragments, some feldspar, trace mica, mottled, thickly laminated to thinly bedded, trace arkosic arenite clasts at 34.3-38.4'. 1% gravel, 83% sand, 4% silt, 12% clay
				2.00/2.00	5912	33				
					5911	34				
	BH00277WC02			2.00/2.00	5910	35				
	BH00275WC02									VOA sample obtained from this interval
					5909	36			SC	Sand with some clay - interlaminated silty clay, light olive gray (5Y5/2) and alluvium, light brown (5YR5/6), as described above
				1.50/2.00	5908	37				
										No recovery for this interval
					5907	38			SC	Sand with some clay - interlaminated silty clay, light olive gray (5Y5/2) and alluvium, light brown (5YR5/6), as described above
				2.00/2.00	5906	39			GW	Sandy Gravel - light brown (5Y6/4), as described below
	BH00276WC02					40				VOA sample obtained from this interval

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 50.0	GROUND ELEVATION (FT): 5945.26	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:	
NORTH: 749598.48	AREA: SE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: J.P. O'BRIEN	10791	
EAST: 2088380.67	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 01/08/92		
REMARKS: HOLLOW STEM AUGER.		BACKFILL MATERIAL: BENTONITE 50.0 FT. - 0.0 FT.			

CHEMICAL SAMPLE / GRADATIONAL SAMPLE / DEPTH	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% – 50% – 100%)	PERCENT RECOVERY (0% – 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	BH00279WCU2			2.00 /2.00	5905	40			GW	Sandy Gravel - light brown (5Y6/4), maximum gravel diameter .2', average .06', coarse- to very fine-grained sand, well graded, angular to sub-rounded, low plasticity, gravel primarily quartzite, some arkosic arenite and micaceous iron stained granite or other porphyritic igneous rock, sand contains abundant quartz, feldspar, some rock fragments, iron staining, dark minerals and mica, no apparent bedding, moist, clasts of weathered micaceous iron stained granite or other porphoritic igneous rock at 40.0-40.2', 43.7-44.0'. 49% gravel, 46% sand, 4% silt, 1% clay.
					5904	41				
					5903	42				
				1.00 /2.00	5902	43				
	BH00278WCU2					44				VOA sample obtained from this interval
				1.00 /1.00	5901				SW	Gravelly Sand - grayish orange (10YR7/4), maximum gravel diameter .1', average .08', very fine- to coarse-grained sand, well graded, angular to sub-rounded, low plasticity, gravel primarily granite, some quartzite and sandy claystone (possibly bedrock rip-up clasts), sand contains abundant quartz, some feldspar, iron staining, rock fragments, mica, trace dark minerals and carbonaceous material, crudely stratified, moist. 30% gravel, 63% sand, 4% silt, 3% clay.
				0.70 /1.00	5900	45				
										No recovery for this interval. Top of bedrock at 46.0 ft.
					5899	46			SANDY CLAYSTONE	Sandy Claystone with some silt - dusky yellow (5Y6/4), very fine- to fine-grained sand, well sorted, angular to sub-angular, approximately 5% porosity, argillaceous cement, slightly friable, abundant quartz, some feldspar, trace rock fragments, moderately laminated to thinly bedded, possible paleo-root fragments or very angular rip-up clasts 46.5-46.6', probable root or bioturbation at 47.6', moist. 32% sand, 7% silt, 61% clay.
	BH00281WCU2			2.00 /2.00	5898	47				
	BH00280WCU2									VOA sample obtained from this interval
					5897	48			SANDY CLAYSTONE	Sandy Claystone - olive gray (5Y3/2), very fine- to fine-grained sand, well sorted, sub-angular to sub-rounded, approximately 7% porosity, argillaceous cement, slightly friable, abundant quartz, trace feldspar, rock fragments or dark minerals, mica, iron staining, mottled to irregularly thinly laminated, possibly bioturbated, discordant carbonaceous material, moist. 47% sand, 3% silt, 50% clay.
				2.00 /2.00	5896	49				
						50				Total depth at 50.0 ft.

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 50.0	GROUND ELEVATION (FT): 5939.55	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:	
NORTH: 749806.34	AREA: SE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: L.A. GUST	10891	
EAST: 2088675.83	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 12/13/91		
REMARKS: HOLLOW STEM AUGER.		BACKFILL MATERIAL: BENTONITE 50.0 FT. - 3.0 FT.			

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
						0				Top soil, start of boring at 0.90 ft.
				0.00 /0.90	5939				GC	Organic Sandy Gravel with some clay - grayish black (N2), maximum size gravel 1" diameter, average 1/2" diameter, medium- to fine-grained sand, poorly graded, sub-angular, low to medium plasticity, gravel primarily quartzite, dominant lithology sand quartz with some rock fragments and dark minerals, some caliche throughout, no apparent bedding, moist, abundant roots present. 68% gravel, 17% sand, 3% silt, 12% clay
				1.10 /1.10	5938	1				
	BH00215WC02 BH00219WC02				5937	2			CL	Gravelly Clay with some sand - pinkish gray (5YR8/1), average size gravel 1/2" diameter, medium- to fine-grained sand, poorly graded, angular to sub-angular, low plasticity, gravel primarily quartzite, dominant lithology sand quartz, abundant caliche throughout, recrystalized CaCO3 around gravel and throughout interval, no apparent bedding, dry. 14% gravel, 6% sand, 4% silt, 76% clay
				0.70 /2.00		3				No recovery for this interval
					5936					VOA sample obtained from this interval
										Duplicate VOA sample obtained from this interval
						4				No recovery for this interval
					5935				GW	Sandy Gravel - moderate yellowish brown (10YR5/4), maximum size gravel greather than 2" diameter, average 1" diameter, coarse- to fine-grained sand, well graded, angular to sub-angular, low plasticity, gravel primarily quartzite with some granite and quartz, dominant lithology sand quartz with some rock fragments and trace dark minerals, mica, K-spar and pyrite, some caliche at 4.0-14.5', trace iron staining on grains, no apparent bedding, moist. 64% gravel, 34% sand, 2% silt
	BH00220WC02			0.80 /2.00		5				
					5934					No recovery for this interval
						6				No recovery for this interval
					5933					
				0.00 /2.00		7				
					5932					
						8			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, some moderate yellow green (5GY7/4) clay at 8.0-8.4', some limonite at 8.4-8.6'
					5931					
				1.00 /2.00		9				No recovery for this interval. Note: Some fine-grained soil was used for composite sample
					5930	10				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 50.0	GROUND ELEVATION (FT): 5939.55	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:	
NORTH: 749806.34	AREA: SE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: L.A. GUST	10891	
EAST: 2088675.83	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 12/13/91		
REMARKS: HOLLOW STEM AUGER		BACKFILL MATERIAL: BENTONITE 50.0 FT. - 3.0 FT.			

CHEMICAL SAMPL GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%			10			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, increase in sand content and iron staining at 10.0-10.8'
	BH00223W02 BH00223W02			1.00 /2.00	5929	11				VOA sample obtained from this interval. No recovery for this interval.
					5928	12			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above.
				0.40 /2.00	5927	13				No recovery for this interval.
					5926	14			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above.
	BH00224W02			0.70 /2.00	5925	15				VOA sample obtained from this interval. No recovery for this interval.
					5924	16			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above.
	BH00225W02			0.90 /2.00	5923	17				No recovery for this interval.
					5922	18			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, increase in sand content and iron staining at 18.0-20.3'.
	BH00226W02			1.10 /2.00	5921	19				VOA sample obtained from this interval. No recovery for this interval.
					5920	20				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 50.0	GROUND ELEVATION (FT): 5939.55	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:
NORTH:	749806.34	AREA: SE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: L.A. GUST	10891
EAST:	2088675.83	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 12/13/91	
REMARKS: HOLLOW STEM AUGER.			BACKFILL MATERIAL: BENTONITE 50.0 FT. - 3.0 FT.		

DEPTH	CHEMICAL SAMPL GRADATIONAL SAI	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
20			0% 50%	100% 0% 100%		5919			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above.
21					1.40 /2.00	5918				No recovery for this interval.
22						5917			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above.
		BH00227MCD2								VOA sample obtained from this interval.
		BH00228MCD2			0.80 /2.00	5916				No recovery for this interval
24						5915			SC	Clayey Sand with some silt - moderate brown (5YR4/4), coarse- to fine-grained sand, average size gravel 1/2" diameter, well graded, sub-angular, low to medium plasticity, dominant lithology sand quartz with trace dark minerals, mica, rock fragments, K-spar and pyrite, some iron staining on grains, gravel primarily quartzite, trace carbonaceous material throughout, no apparent bedding, moist to very moist. 4% gravel, 61% sand, 7% silt, 28% clay
25					2.00 /2.00	5914				
26						5913			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), maximum size gravel greater than 2" diameter, average 3/4" diameter, coarse- to fine-grained sand, sub-angular, low plasticity, well graded, gravel primarily quartzite with some granite, dominant lithology sand quartz with some rock fragments and trace dark minerals and mica, some iron staining on grains, trace reworked bedrock at 26.5', no apparent bedding, moist. 57% gravel, 38% sand, 4% silt, 1% clay
27					1.40 /2.00	5912				
		BH00229MCD2								VOA sample obtained from this interval.
										No recovery for this interval
28						5911			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above.
29		BH00230MCD2			1.00 /2.00					
						5910				No recovery for this interval
30										

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 50.0	GROUND ELEVATION (FT): 5939.55	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:	
NORTH: 749806.34	AREA: SE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: L.A. GUST	10891	
EAST: 2088675.83	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 12/13/91		
REMARKS: HOLLOW STEM AUGER.		BACKFILL MATERIAL: BENTONITE 50.0 FT. - 3.0 FT.			

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
						30			GW:	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above.
				1.50 /2.00	5909	31			SC:	Clayey Sand with some silt - moderate brown (5YR3/4), coarse- to fine-grained sand, average size gravel 1/4" diameter, well graded, sub-angular, low to medium plasticity, dominant lithology sand quartz with some rock fragments and trace mica and dark minerals, some iron staining on grains, trace carbonaceous material throughout, trace grayish yellow green (5GY7/2) clay throughout, no apparent bedding, moist. 3% gravel, 65% sand, 9% silt, 23% clay.
	BH00231WC02				5908	32			GW:	Sandy Gravel - moderate yellowish brown (10YR5/4), as described below.
										VOA sample obtained from this interval.
					5907					No recovery for this interval.
				1.10 /2.00		33			GW:	Sandy Gravel - moderate yellowish brown (10YR5/4), maximum size gravel 2" diameter, average 1" diameter, coarse- to fine-grained sand, well graded, sub-angular to sub-rounded, low plasticity, gravel primarily quartzite with some granite and trace kaolinized coating around gravel, dominant lithology sand quartz with abundant rock fragments and trace dark minerals, mica and K-spar, trace iron staining on grains, trace reworked bedrock at 33.0', no apparent bedding, moist. 57% gravel, 36% sand, 6% silt, 1% clay.
					5906	34				
					5905					No recovery for this interval.
	BH00232WC02			1.70 /2.00		35			GW:	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above.
	BH00233WC02				5904					VOA sample obtained from this interval.
										No recovery for this interval.
						36			GW:	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, increase in sand at 36.0-37.4'.
				1.60 /2.00	5903	37				
					5902					No recovery for this interval.
						38			GW:	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, increase in sand at 38.0-38.2'.
				1.60 /2.00	5901	39				
	BH00235WC02				5900					VOA sample obtained from this interval.
						40				No recovery for this interval.

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 50.0	GROUND ELEVATION (FT): 5939.55	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:	
NORTH: 749806.34	AREA: SE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: L.A. GUST	10891	
EAST: 2088675.83	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 12/13/91		
REMARKS: HOLLOW STEM AUGER.		BACKFILL MATERIAL: BENTONITE 50.0 FT. - 3.0 FT			

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					5899	40			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above.
	BH00234WC02			0.90 /2.00	5898	41				No recovery for this interval.
						42			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above.
	BH00236WC02			0.80 /2.00	5897					VOA sample obtained from this interval.
					5896	43				No recovery for this interval.
					5895	44			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, becoming wet at 44.0-44.5'. Top of bedrock at 44.5 ft.
				2.00 /2.00	5894	45			CLAYSTONE	Claystone with some silt - light olive (10Y5/4), very fine-grained sand, well sorted, sub-angular, approximately 5% porosity, argillaceous cement, non- to slightly friable, dominant lithology sand clear quartz with some dark minerals, trace carbonaceous material and limonite throughout, wood fragments at 45.0', some sand clasts at 44.5-45.0', blocky, no apparent bedding or fractures, moist, slightly weathered, brecciated appearance, some bioturbation at 44.5-44.8', wood fragments at 46.8'. 1% sand, 15% silt, 84% clay.
					5893	46				
	BH00238WC02			2.00 /2.00	5892	47				
	BH00237WC02									VOA sample obtained from this interval.
				2.00 /2.00	5891	48			CLAYSTONE	Claystone with some silt - olive gray (5Y4/1), very fine-grained sand, well sorted, sub-angular, approximately 5% porosity, argillaceous cement, non- to slightly friable, dominant lithology sand clear quartz with trace dark minerals, some carbonaceous material and limonite throughout, wood fragments at 49.1', no apparent bedding, blocky, some apparent healed fractures with iron throughout, brecciated appearance, moist, unweathered, some 30 degree healed fractures at 49.6-49.8', vertical fracture at 49.9-50.0'. 2% sand, 12% silt, 86% clay.
					5890	49				
						50				Total depth at 50.0 ft.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 56.0	GROUND ELEVATION (FT):	5940.01	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749628.51	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	10991
EAST:	2088678.60	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	12/19/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 44.1 FT. - 41.0 FT. BACKFILL MATERIAL: BENTONITE 56.0 FT. - 53.0 FT.
SOURCE BORING WAS CONVERTED INTO MW BECAUSE OF SUB- CROPPING SANDSTONE.

CHEMICAL SAMPL / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
				0.00 /0.90	5940	0				Top soil, start of boring at 0.90 ft.
				1.10 /1.10	5939	1			GC	Sandy Gravel with some clay - brownish black (5YR2/1), maximum gravel size 1" diameter, average 1/2" diameter, coarse- to fine-grained sand, poorly graded, angular to sub-angular, low to medium plasticity, gravel primarily quartzite, dominant lithology sand quartz with some rock fragments and trace dark minerals, some caliche throughout, no apparent bedding, moist, abundant roots present. 62% gravel, 27% sand, 1% silt, 10% clay.
					5938	2			CL	Gravelly Clay with some sand - pinkish gray (5YR3/1), maximum size gravel 1/2" diameter, average 1/4" diameter, medium to fine-grained sand, poorly graded, sub-angular, low plasticity, gravel primarily quartzite, dominant lithology sand quartz with abundant rock fragments, abundant caliche throughout, no apparent bedding, dry. 17% gravel, 6% sand, 2% silt, 75% clay
	BH0024WC02			0.70 /2.00	5937	3				VOA sample obtained from this interval
					5936	4				No recovery for this interval
	BH0024WC02			0.00 /2.00	5935	5				
					5934	6			GW	Sandy Gravel - moderate brown (5YR4/4), maximum size gravel greater than 2" diameter, average size 1" diameter, coarse- to fine-grained sand, well graded, sub-angular to sub-round, low plasticity, gravel primarily quartzite with some granite, dominant lithology sand rock fragments with abundant quartz with trace dark minerals, mica and K-spar, some caliche at 6.0-14.0', no apparent bedding, moist, trace arkosic arenite at 6.9'. Note: fine-grained soil was used for composite sample. 63% gravel, 32% sand, 4% silt, 1% clay
	BH0024WC02			1.10 /2.00	5933	7				VOA sample obtained from this interval
					5932	8				No recovery for this interval
				0.00 /2.00	5931	9				
						10				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 56.0	GROUND ELEVATION (FT):	5940.01	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749628.51	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	10991
EAST:	2088678.60	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	12/19/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 44.1 FT. - 41.0 FT. BACKFILL MATERIAL: BENTONITE 56.0 FT. - 53.0 FT.
SOURCE BORING WAS CONVERTED INTO MW BECAUSE OF SUB- CROPPING SANDSTONE.

DEPTH	CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
						5930	10			GW	Sandy Gravel - moderate brown (5YR4/4) as described above
		BH0243WC02									VOA sample obtained from this interval
		BH0244WC02			0.70 /2.00	5929	11				No recovery for this interval
						5928	12			GW	Sandy Gravel - moderate brown (5YR4/4) as described above, trace limonite and an increase in sand content at 12.0-13.3'
					1.30 /2.00	5927	13				No recovery for this interval
						5926	14			GW	Sandy Gravel - moderate brown (5YR4/4) as described above
		BH0245WC02									VOA sample obtained from this interval
					0.40 /2.00	5925	15				No recovery for this interval
						5924	16			GW	Sandy Gravel - moderate brown (5YR4/4) as described above
		BH0247WC02			0.80 /2.00	5923	17				No recovery for this interval
						5922	18			SW	Gravelly Sand - light brown (5YR5/6) to moderate brown (5YR4/4) as described below
		BH0246WC02									VOA sample obtained from this interval
					0.90 /2.00	5921	19				No recovery for this interval
							20				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 56.0	GROUND ELEVATION (FT):	5940.01	PROJECT NUMBER:	OU2/RI
NORTH: 749628.51	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST: 2088678.60	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	12/19/91

LOG OF BORING NUMBER: 10991

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 44.1 FT - 41.0 FT. BACKFILL MATERIAL: BENTONITE 56.0 FT - 53.0 FT. SOURCE BORING WAS CONVERTED INTO MW BECAUSE OF SUB-CROPPING SANDSTONE.

CHEMICAL SAMPL GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50%	100% 0%	100%					SW	Gravelly Sand - light brown (5YR5/6) to moderate brown (5YR4/4), maximum size gravel 2" diameter, average 1" diameter, coarse- to fine-grained sand, sub-angular sand, sub-angular to sub-rounded gravel, well graded, low plasticity, dominant lithology sand quartz with some rock fragments and dark minerals with trace mica and K-spar, gravel primarily quartzite with some granite, trace limonite throughout, no apparent bedding, moist, clay-like appearance. 24% gravel, 72% sand, 3% silt, 1% clay
				1.90 /2.00	5919	21				
					5918	22				No recovery for this interval.
									SW	Gravelly Sand - light brown (5YR5/6) to moderate brown (5YR4/4), as described above.
	BH00250WC02			1.50 /2.00	5917	23				
	BH00249WC02									VOA sample obtained from this interval.
										No recovery for this interval
					5916	24			SW	Gravelly Sand - light brown (5YR5/6) to moderate brown (5YR4/4), as described above, light olive (5Y5/2) sand with trace horizontal bedding at 26.0-26.3', could be displaced bedrock, trace horizontal bedding at 26.8-27.2'
				2.00 /2.00	5915	25				
					5914	26				
				1.60 /2.00	5913	27				
	BH00251WC02									VOA sample obtained from this interval
										No recovery for this interval
					5912	28			SW	Gravelly Sand - light brown (5YR5/6) to moderate brown (5YR4/4), as described above
	BH00252WC02			1.00 /2.00	5911	29				
										No recovery for this interval
						30				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 56.0	GROUND ELEVATION (FT):	5940.01	PROJECT NUMBER:	002/RI	LOG OF BORING NUMBER:
NORTH:	749628.51	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	10991
EAST:	2088678.60	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	12/19/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 44.1 FT. - 41.0 FT. BACKFILL MATERIAL: BENTONITE 56.0 FT. - 53.0 FT.
SOURCE BORING WAS CONVERTED INTO MW BECAUSE OF SUB- CROPPING SANDSTONE.

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%			30			SW	Gravelly Sand - light brown (5YR5/6) to moderate brown (5YR4/4), as described above, increase in gravel content at 29.5-30.8'.
	BH00253C02			0.80 /2.00	5909	31				VOA sample obtained from this interval. No recovery for this interval.
					5908	32			GC	Sandy Gravel with some clay - dusky brown (5YR2/2), maximum size gravel 1/2" diameter, average 1/4" diameter, coarse- to fine-grained sand, well graded, sub-rounded, low plasticity, gravel primarily quartzite with trace granite, dominant lithology sand quartz with some rock fragments and dark minerals, no apparent bedding, moist. 59% gravel, 29% sand, 2% silt, 10% clay.
				2.00 /2.00	5907	33			SW	Sand with some gravel - dark yellowish brown (10YR4/2), coarse- to fine-grained sand, maximum size gravel 1/2" diameter, average 1/4" diameter, well graded, sub-angular, low plasticity, dominant lithology sand quartz with some rock fragments with trace dark minerals and mica, gravel primarily quartzite, no apparent bedding, moist to wet. 13% gravel, 84% sand, 1% silt, 2% clay.
					5906	34				
	BH00254C02			1.20 /2.00	5905	35				VOA sample obtained from this interval. No recovery for this interval.
					5904	36			GW	Sandy Gravel - dark yellowish brown (10YR4/2), maximum size gravel greater than 2" diameter, average 1" diameter, coarse- to fine-grained sand, well graded, sub-angular to sub-rounded, low plasticity, gravel primarily quartzite with some granite and weathered schist, dominant lithology sand rock fragments with abundant quartz and some dark minerals with trace mica, no apparent bedding, wet, trace limonite and carbonaceous material at 36.0-36.8'. 63% gravel, 33% sand, 3% silt, 1% clay.
				1.50 /2.00	5903	37				
					5902	38				No recovery for this interval.
				1.40 /2.00	5901	39			GW	Sandy Gravel - dark yellowish brown (10YR4/2) as described above.
	00256HC02					40				VOA sample obtained from this interval. No recovery for this interval.

STATE PLANE COORDINATE	TOTAL DEPTH (FT): 56.0	GROUND ELEVATION (FT): 5940.01	PROJECT NUMBER: 002/RI	LOG OF BORING NUMBER:
NORTH: 749628.51	AREA: SE TRENCHES	CASING DIAMETER (IN): 2.0	GEOLOGIST: L.A. GUST	10991
EAST: 2088678.60	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 12/19/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 44.1 FT. - 41.0 FT. BACKFILL MATERIAL: BENTONITE 56.0 FT. - 53.0 FT.
SOURCE BORING WAS CONVERTED INTO MW BECAUSE OF SUB- CROPPING SANDSTONE

DEPTH (FT)	CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY / INTERVAL	DATUM (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
40						5900			GW	Sandy Gravel - dark yellowish brown (10YR4/2) as described above
41		BH0258WC02			1.10 /2.00	5899				No recovery for this interval
42						5898			GW	Sandy Gravel - dark yellowish brown (10YR4/2) as described above
43		BH0257WC02			1.00 /2.00	5897				VOA sample obtained from this interval No recovery for this interval
44						5896			GW	Sandy Gravel - dark yellowish brown (10YR4/2) as described above, saturated at 44.0-45.2' Top of bedrock at 45.2 ft
45					1.50 /2.00	5895			SILTY SANDSTONE	Silty Sandstone - dark yellowish orange (10YR6/6) to pale olive (10Y6/2) as described below No recovery for this interval
46						5894			SILTY SANDSTONE	Silty Sandstone - dark yellowish orange (10YR6/6) to pale olive (10Y6/2), fine- to very fine-grained sand, well sorted, sub-angular to sub-rounded, approximately 20% porosity, argillaceous cement, moderately to highly friable, dominant lithology sand clear quartz with some dark minerals and trace mica, abundant iron staining on grains, abundant limonite throughout, trace carbonaceous material and wood fragments throughout, trace horizontal bedding throughout, no apparent fractures, saturated, weathered 63% sand, 33% silt, 4% clay
47		BH0261WC02			2.00 /2.00	5893				
48		BH0259WC02				5892				VOA sample obtained from this interval
49					2.00 /2.00	5891			SILTY SANDSTONE	Silty Sandstone - dark yellowish orange (10YR6/6) to pale olive (10Y6/2) as described above, trace iron nodules at 48.7', soft sediment deformation with sandstone/claystone contact and abundant limonite along contact at 75 degree angle - possible fracture plane at 49.8-50.0'
50										

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 56.0	GROUND ELEVATION (FT):	5940.01	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749628.51	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	10991
EAST:	2088678.60	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	12/19/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 44.1 FT. - 41.0 FT. BACKFILL MATERIAL: BENTONITE 56.0 FT - 53.0 FT.
SOURCE BORING WAS CONVERTED INTO MW BECAUSE OF SUB- CROPPING SANDSTONE.

DEPTH	CHEMICAL SAMPL / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY / INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			0% 50% 100%	0% 100%							
						5890	50			SANDSTONE	Sandstone with some silt - dusky yellow (5Y6/4), medium- to very fine-grained sand, moderately sorted, sub-rounded to rounded, approximately 30% porosity, highly friable, argillaceous cement, dominant lithology sand clear quartz with some dark minerals and trace iron nodules, some iron staining on grains, massive, no apparent bedding or fractures, saturated, weathered. 84% sand, 14% silt, 2% clay.
					1.50 /2.00	5889	51	12/19/9			
						5888	52			SANDY CLAYSTONE	Sandy Claystone with some silt - medium dark gray (N4) as described below, trace limonite at 50.4-52.5', trace low angle bedding at 50.4-53.8' which controls a trace of limonite, some 45 degree healed fractures with iron at 50.4-50.8'.
											No recovery for this interval.
		BH00250A012			2.00 /2.00	5887	53			SANDY CLAYSTONE	Sandy Claystone with some silt - medium dark gray (N4), very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with trace dark minerals, trace clay clasts throughout, moist, unweathered. 30% sand, 18% silt, 52% clay.
						5886	54				
					2.00 /2.00	5885	55				
						5884	56				Total depth at 56.0 ft.
						5883	57				
						5882	58				
						5881	59				
							60				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 8.8	GROUND ELEVATION (FT):	5673.31	PROJECT NUMBER:	OU2/RI
NORTH: 751208.36	AREA: NE TRENCHES	CASING DIAMETER (IN):		GEOLOGIST:	L.A. GUST
EAST: 2093868.49	LOCATOR NUMBER: I20	BOREHOLE DIAMETER (IN):	7.0	DATE DRILLED:	08/28/91
REMARKS: HOLLOW STEM AUGER		BACKFILL MATERIAL:	BENTONITE 8.8 FT. - 3.0 FT.		

WELL WAS ABANDONED DUE TO SHALLOW BEDROCK, OFFSET TO WELL 06491.

LOG OF BORING NUMBER: 11091

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%							Top soil, start of boring at 0.90 ft
				0.00 /0.90	5673	0			SC:	Organic Clayey Sand with some gravel - light olive gray (5Y5/2), fine- to very fine-sand, maximum pebble size 3/4", well graded, sub-rounded, low plasticity, dominant lithology of sand is quartz, no apparent bedding, moist. 10% gravel, 73% sand, 17% fines.
				1.90 /1.90	5672	1				
					5671	2				No recovery at this interval. Top of bedrock at 2.8 ft.
				2.00 /2.00	5670	3			CLAYSTONE:	Claystone with some sand & silt - grayish olive (10Y4/2) and olive gray (5Y3/2), very fine-grained sand, moderately to well sorted, sub-rounded, low porosity, argillaceous cement, non-friable, dominant lithology of sand quartz, banded zones of limonite and caliche, no apparent bedding, increase in fracturing at 4.8-5.2', moist, increase in competency at 5.8'. 10% sand, 9% silt, 81% clay
					5669	4				
				2.00 /2.00	5668	5				
					5667	6				
				2.00 /2.00	5666	7				
					5665	8				VOA sample obtained from this interval.
	BH00002AC02				5664	9				Total depth at 8.8 ft.
						10				

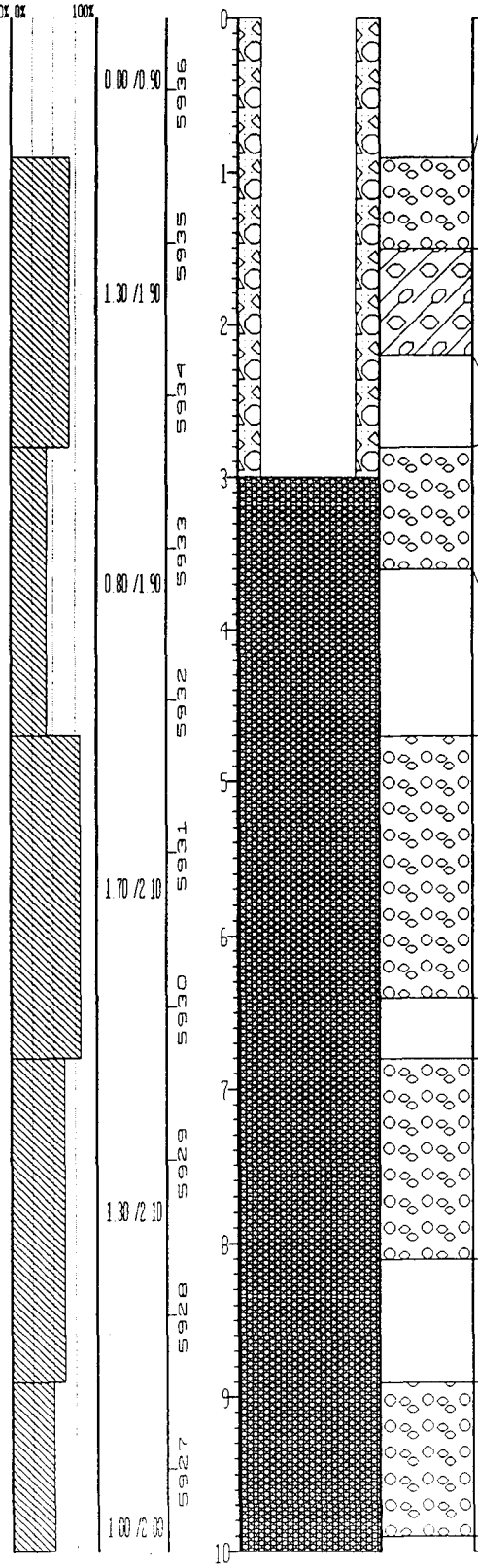
STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 46.2	GROUND ELEVATION (FT):	5936.46	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER
NORTH: 749567.57	AREA: SE TRENCHES	CASING DIAMETER (IN):		GEOLOGIST:	L.A. GUST	11191
EAST: 2088839.39	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	7.0	DATE DRILLED:	09/11/91	

REMARKS: HOLLOW STEM AUGER — BACKFILL MATERIAL: BENTONITE 46.2 FT. - 0.0 FT.

WELL WAS ABANDONED DUE TO DIRTY AUGERS, OFFSET TO WELL 04991.

CHEMICAL SAMPLE / GRADATIONAL SA. / SAMPLE NUMBER / DEPTH

SAMPLE GRAIN SIZE (0% 50% 100%) — PERCENT RECOVERY (0% 100%) — RECOVERY/INTERVAL — DATUM (FT) — DEPTH (FT) — WELL OR PIEZOMETER CONSTRUCTION — LITHOLOGY



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	Top soil, start of boring at 0.90 ft.
GW	Sandy Gravel - dark gray, black dusky brown (5YR2/2), maximum size gravel 1 1/2" diameter, average 1/2" diameter, coarse- to medium-grained sand, well graded, sub-rounded, low plasticity, gravel primarily quartzite, dominant lithology sand quartz with some rock fragments, abundant organics, no apparent bedding, dry, abundant roots present
GC	Gravelly Sand with some clay - moderate brownish red (10R4/6), coarse-grained sand, maximum size gravel 1" diameter, average 1/2" diameter, poorly graded, sub-rounded, low plasticity, dominant lithology sand quartz with some rock fragments, abundant caliche and carbonaceous material throughout, no apparent bedding, dry
	No recovery for this interval
GW	Sandy Gravel - moderate yellowish brown (10YR5/4), gravel from 2 1/2" to 1/4", sand coarse-grained, well graded, sub-rounded, low plasticity, gravel primarily quartzite, dominant lithology sand quartz with some rock fragments and trace dark minerals, mica and K-spar, no apparent bedding, dry. 73% gravel, 27% sand
	No recovery for this interval
GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above
	No recovery for this interval
GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above
	No recovery for this interval
GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 46.2	GROUND ELEVATION (FT): 5936.46	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:
NORTH: 749567.57	AREA: SE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: L.A. GUST	11191
EAST: 2088839.39	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN): 7.0	DATE DRILLED: 09/11/91	
REMARKS: HOLLOW STEM AUGER.		BACKFILL MATERIAL: BENTONITE 46.2 FT - 0.0 FT.		
WELL WAS ABANDONED DUE TO DIRTY AUGERS, OFFSET TO WELL 04991.				

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%		5926	10				No recovery for this interval.
				1.00 /1.90	5925	11			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above.
					5924	12				No recovery for this interval.
						13			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above.
				1.10 /2.00	5923				SC	Clayey Sand - moderate yellowish brown (10YR5/4), as described below
					5922	14				No recovery for this interval
				2.00 /2.00	5921	15			SC	Clayey Sand - moderate yellowish brown (10YR5/4), coarse- to fine-grained sand, maximum size gravel 3/4" diameter, well graded, sub-rounded, low plasticity, dominant lithology sand quartz with trace dark minerals and mica, gravel primarily quartzite, sand with clay binder, trace caliche, no apparent bedding, moist 56% sand, 46% fines.
					5920	16				
					5919	17				
				2.00 /2.00						
					5918	18				
					5917	19				
				2.00 /2.10		20				

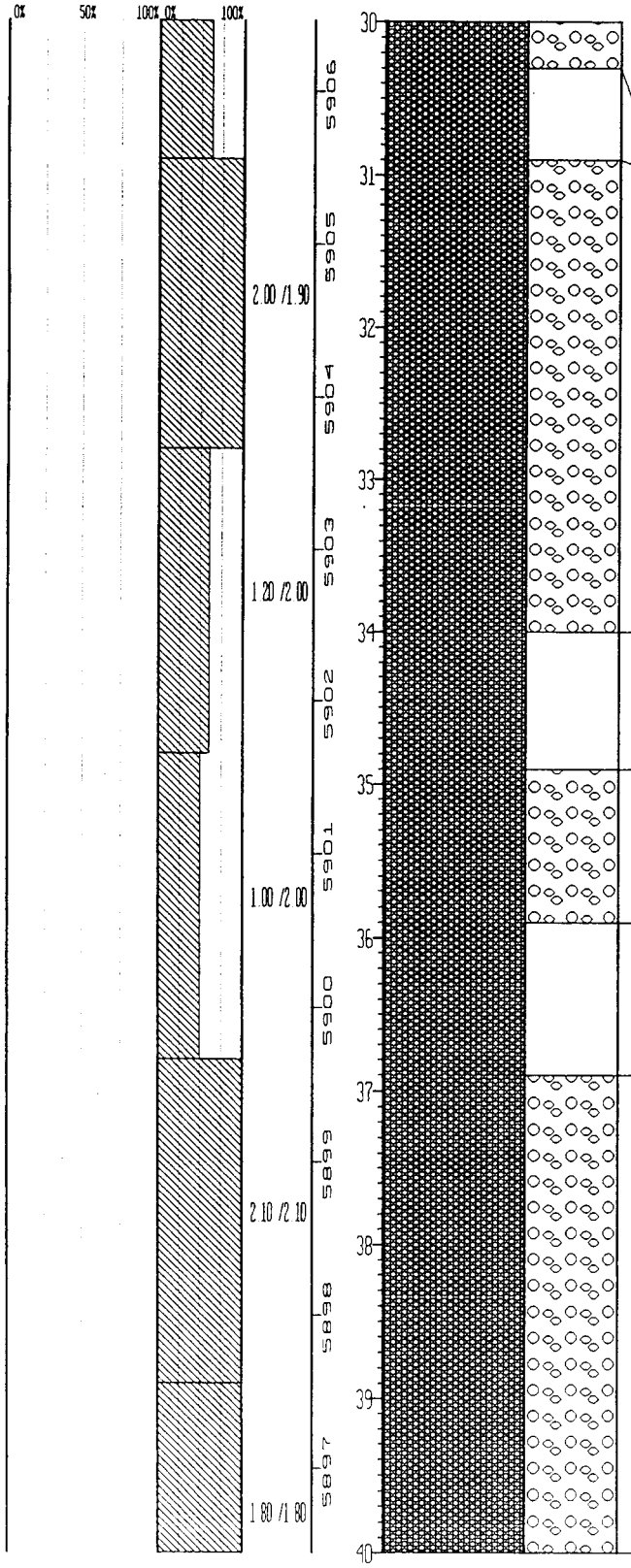
STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 46.2	GROUND ELEVATION (FT):	5936.46	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749567.57	AREA: SE TRENCHES	CASING DIAMETER (IN):		GEOLOGIST:	L.A. GUST	11191
EAST:	2088839.39	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	7.0	DATE DRILLED:	09/11/91	

REMARKS: HOLLOW STEM AUGER.
WELL WAS ABANDONED DUE TO DIRTY AUGERS, OFFSET TO WELL 04991.

BACKFILL MATERIAL: BENTONITE 46.2 FT. - 0.0 FT.

CHEMICAL SAMPC GRADATIONAL SAM	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%			20				
					5916				SP	Gravelly Sand - moderate yellowish brown (10YR5/4), medium- to fine-grained sand, average size gravel 1/2" diameter, well graded, sub-rounded, low plasticity, dominant lithology sand quartz with trace dark minerals, mica and K-spar, gravel primarily quartzite, no apparent bedding, moist. 25% gravel, 72% sand, 3% fines.
						21				
					5915					
				2.00 /2.00		22				
					5914					
						23				
					5913					
				1.00 /1.90					GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described below
						24				No recovery for this interval.
					5912					
						25			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), maximum size gravel 2 1/2" diameter, average 1/4" diameter, coarse-grained sand, well graded, sub-angular to sub-rounded, low plasticity, gravel primarily quartzite with some granite, dominant lithology sand quartz with some rock fragments and trace dark minerals and mica, no apparent bedding, moist. 78% gravel, 21% sand, 1% fines.
				1.80 /2.00	5911					
						26				
					5910					
										No recovery for this interval.
						27			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above
					5909					
				2.00 /2.00					CL	Sandy Clay with some gravel and silt - dark yellowish brown (10YR4/2), coarse- to fine-grained sand, average size gravel 1/4" diameter, well graded, sub-rounded to rounded, low to medium plasticity, dominant lithology sand quartz with trace dark minerals and mica, gravel primarily quartzite, no apparent bedding, moist. 15% gravel, 20% sand, 15% silt, 50% clay.
						28				
					5908					
						29				
					5907					
				1.30 /2.10					GW	Sandy Gravel - moderate brown (5YR3/4), maximum size gravel 2" diameter, average 1" diameter, coarse- to fine-grained sand, well graded, sub-angular to sub-rounded, low plasticity,
						30				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 46.2	GROUND ELEVATION (FT):	5936.46	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 749567.57	AREA: SE TRENCHES	CASING DIAMETER (IN):		GEOLOGIST:	L.A. GUST	11191
EAST: 2088839.39	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	7.0	DATE DRILLED:	09/11/91	
REMARKS: HOLLOW STEM AUGER.		BACKFILL MATERIAL:	BENTONITE 46.2 FT. - 0.0 FT.			
WELL WAS ABANDONED DUE TO DIRTY AUGERS, OFFSET TO WELL 04991.						



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	gravel primarily quartzite with some granite, dominant lithology sand quartz with some rock fragments and trace dark minerals, mica and K-spar, no apparent bedding, moist. 66% gravel, 33% sand, 1% fines
	No recovery for this interval.
GW	Sandy Gravel - moderate brown (5YR3/4), as described above.
	No recovery for this interval
GW	Sandy Gravel - moderate brown (5YR3/4), as described above, 35.0-35.5' clayey zone
	No recovery for this interval
GW	Sandy Gravel - moderate brown (5YR3/4), as described above, 39.2-40.1' clayey sand gravel (reworked bedrock?) with weathered gravel, rust color one part with carbon inclusions, abundant iron staining, some gravel up to 2", moist to dry. Top of bedrock at 40.1 ft.

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 46.2	GROUND ELEVATION (FT): 5936.46	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:
NORTH: 749567.57	AREA: SE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: L.A. GUST	11191
EAST: 2088839.39	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN): 7.0	DATE DRILLED: 09/11/91	

REMARKS: HOLLOW STEM AUGER.
WELL WAS ABANDONED DUE TO DIRTY AUGERS, OFFSET TO WELL 04991.

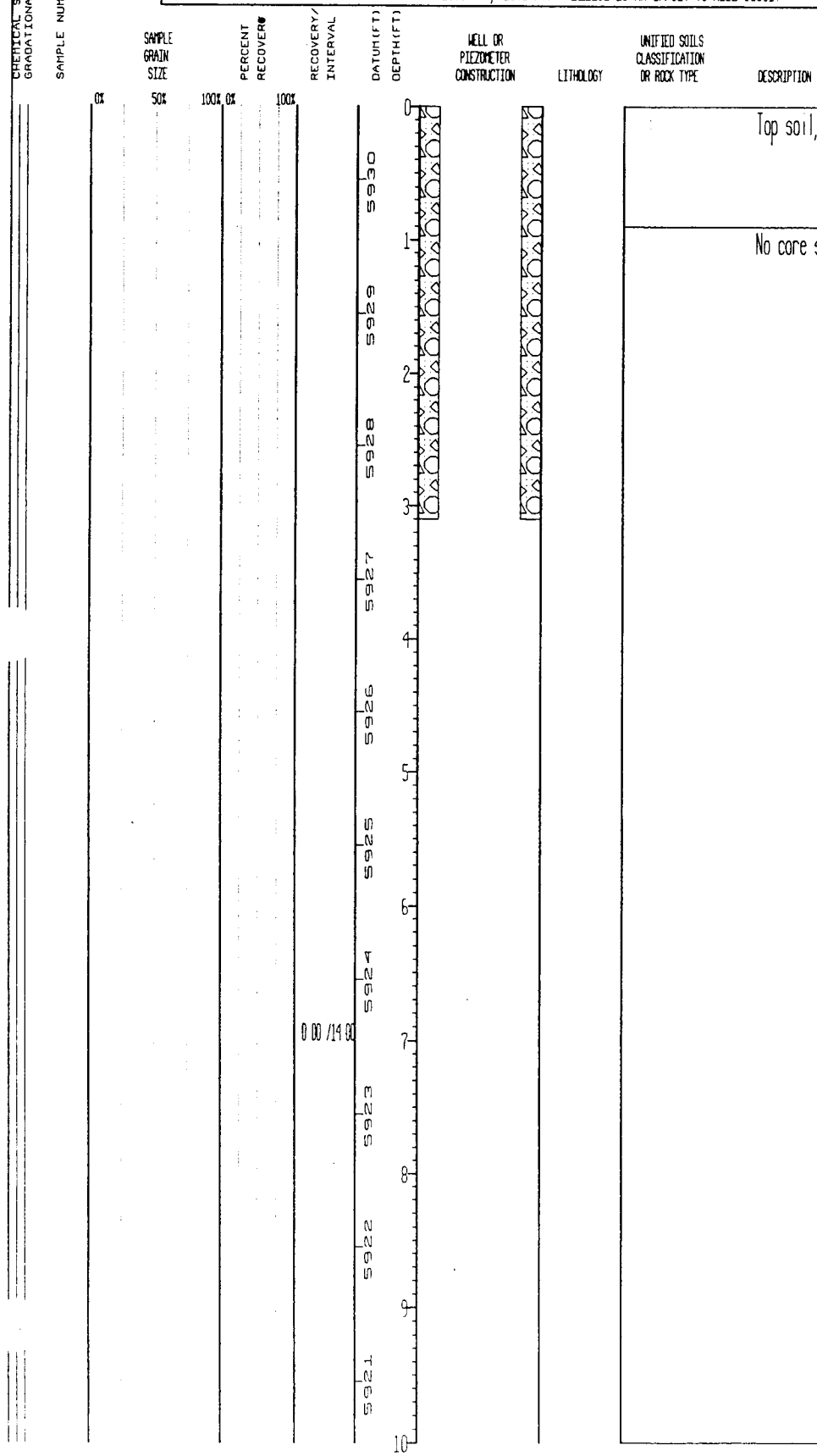
BACKFILL MATERIAL: BENTONITE 46.2 FT. - 0.0 FT.

CHEMICAL SAMPL / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	BH00008WCU2	0% 50% 100%	0% 100%	2.00 /2.00	5896	40			SANDY CLAYSTONE	Sandy Claystone with some silt - moderate olive brown (5Y4/4), as described below.
										VOA sample obtained from this interval.
					5895	41			SANDY CLAYSTONE	Sandy Claystone with some silt-moderate olive brown (5Y4/4), fine- to very fine-grained sand, moderately sorted, sub-angular to sub-rounded, approximately 15% porosity, argillaceous cement, slightly friable, dominant lithology of sand clear quartz with trace of mica, K-spar and dark minerals, limonite staining throughout interval, no apparent bedding, trace subhorizontal fracturing, moist, weathered, interbedded sandstone lenses of approximately 1" thick throughout interval 36% sand, 8% silt, 56% clay.
					5894	42				
				2.00 /2.00	5893	43				
					5892	44			SANDY CLAYSTONE	Sandy Claystone/Clayey Sandstone with some silt - light olive gray (5Y5/2) to olive gray (5Y3/2), fine- to very fine-grained sand, moderate to well sorted, sub-angular to sub-rounded, 15-20% porosity, argillaceous cement, moderately friable, dominant lithology sand clear quartz, trace mica, K-spar and dark minerals, abundant limonite staining on grains, no apparent bedding, moist, mottled, trace clay clastic, slightly weathered, alternating layers of claystone and sandstone. CS-31% sand, 27% silt, 41% clay SS-52% sand, 9% silt, 37% clay
				1.50 /1.50	5891	45				
					5890	46				
					5889	47				Total depth at 46.2 ft.
					5888	48				
					5887	49				
						50				

STATE PLANE COORDINATE		TOTAL DEPTH (FT): 33.92	GROUND ELEVATION (FT):	5930.55	PROJECT NUMBER:	OU2/RI
NORTH:	750391.10	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST:	2088967.78	LOCATOR NUMBER: I15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/18/91

LOG OF BORING NUMBER: 11291

REMARKS: HOLLOW STEM AUGER BENTONITE SEAL 18.4 FT. - 15.4 FT. BACKFILL MATERIAL: BENTONITE 33.92 FT. - 33.0 FT. NO CORE SAMPLES OBTAINED WITH THE EXCEPTION OF 14.0 FT. - 15.0 FT., 25.6 FT. - 28.1291 IS AN OFFSET TO WELL 06091.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	Top soil, start of boring at 0.90 ft.
	No core samples obtained until 14.0 ft.

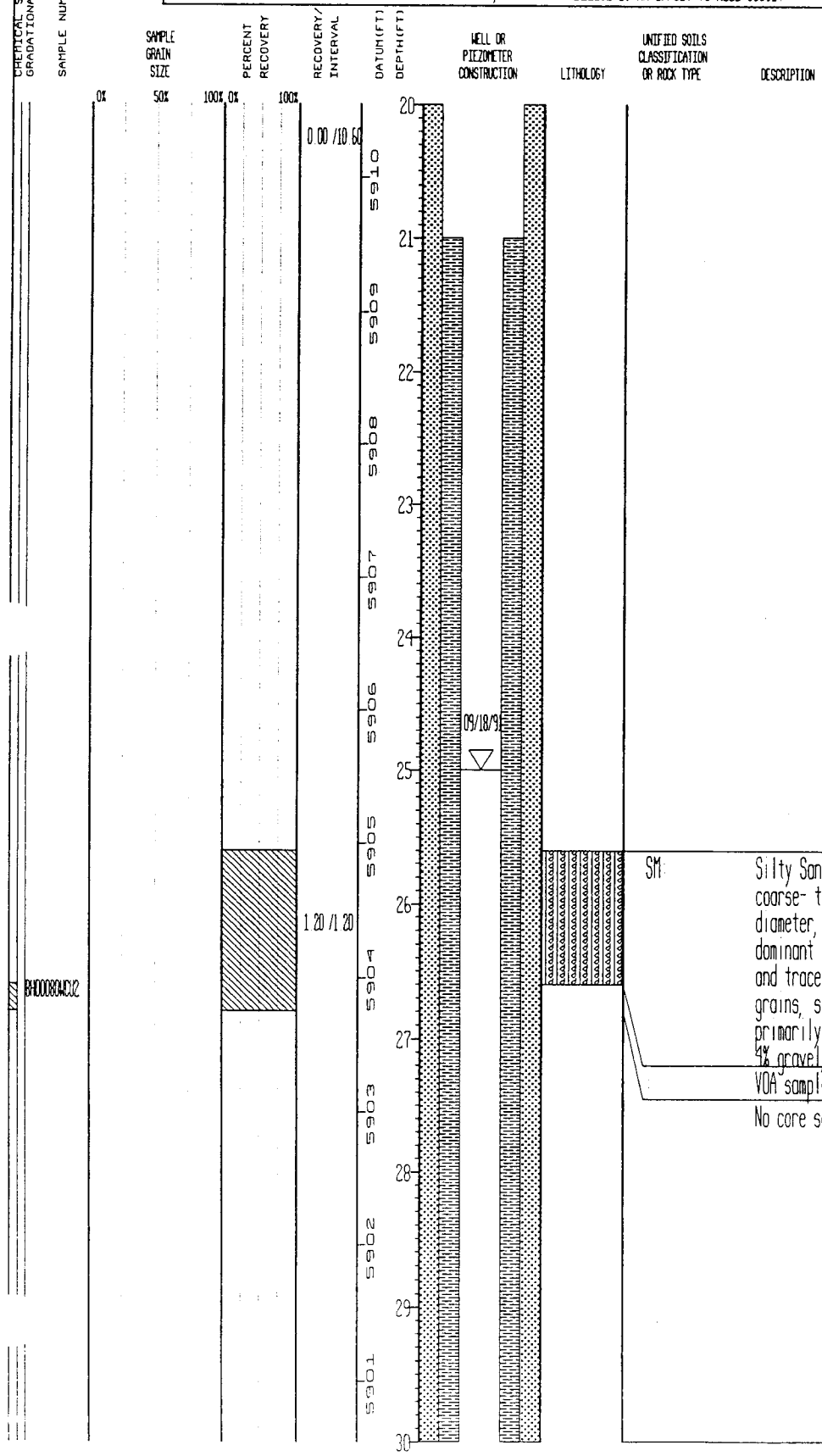
STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 33.92	GROUND ELEVATION (FT):	5930.55	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	750391.10	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	11291
EAST:	2088967.78	LOCATOR NUMBER: I15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/18/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 18.4 FT. - 15.4 FT. BACKFILL MATERIAL: BENTONITE 33.92 FT. - 33.0 FT. NO CORE SAMPLES OBTAINED WITH THE EXCEPTION OF 14.0 FT. - 15.0 FT., 25.6 FT. - 28.1291 IS AN OFFSET TO WELL 06091.

CHEMICAL SAMPL / GRADATIONAL SA	DEPTH	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			0% 50% 100%	0% 100%		5920	10				
						5919	11				
						5918	12				
						5917	13				
					1.00/1.00	5916	14			GW	Sandy Gravel - pale yellowish brown (10YR6/2), maximum size gravel 1" diameter, average size 1/2" diameter, coarse- to fine-grained sand, well graded, sub-angular, low plasticity, gravel primarily quartzite with some granite, dominant lithology sand quartz with some rock fragments, trace dark minerals and mica, some iron staining on grains and throughout, no apparent bedding, dry. 63% gravel, 34% sand, 1% silt, 2% clay. No core sample obtained for this interval.
						5915	15				
						5914	16				
						5913	17				
						5912	18				
						5911	19				
							20				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 33.92	GROUND ELEVATION (FT):	5930.55	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	750391.10	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	11291
EAST:	2088967.78	LOCATOR NUMBER: I15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/18/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 18.4 FT. - 15.4 FT. BACKFILL MATERIAL: BENTONITE 33.92 FT. - 33.0 FT. NO CORE SAMPLES OBTAINED WITH THE EXCEPTION OF 14.0 FT. - 15.0 FT., 25.6 FT. - 28.1291 IS AN OFFSET TO WELL 06091.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE

DESCRIPTION

SM: Silty Sand with some clay - moderate yellowish brown (5YR4/4), coarse- to fine-grained sand, average size gravel 1/4" diameter, well graded, sub-angular to sub-round, low plasticity, dominant lithology sand quartz with some rock fragments and trace mica and dark minerals, some iron staining on grains, some carbonaceous material throughout, gravel primarily quartzite, no apparent bedding, very moist. 4% gravel, 62% sand, 26% silt, 8% clay

VOA sample obtained from this interval

No core sample obtained for this interval

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 33.92	GROUND ELEVATION (FT):	5930.55	PROJECT NUMBER:	OU2/RI
NORTH: 750391.10	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST: 2088967.78	LOCATOR NUMBER: I15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	09/18/91

LOG OF BORING NUMBER: 11291

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 18.4 FT. - 15.4 FT. BACKFILL MATERIAL: BENTONITE 33.92 FT. - 33.0 FT. NO CORE SAMPLES OBTAINED WITH THE EXCEPTION OF 14.0 FT. - 15.0 FT., 25.6 FT. - 28.1291 IS AN OFFSET TO WELL 06091.

CHEMICAL SAMPLE / GRADATIONAL SA.	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%	0.00 /7.12	5900 5899 5898 5897 5896 5895 5894 5893 5892 5891	30 31 32 33 34 35 36 37 38 39 40				Total depth at 33.92 ft.

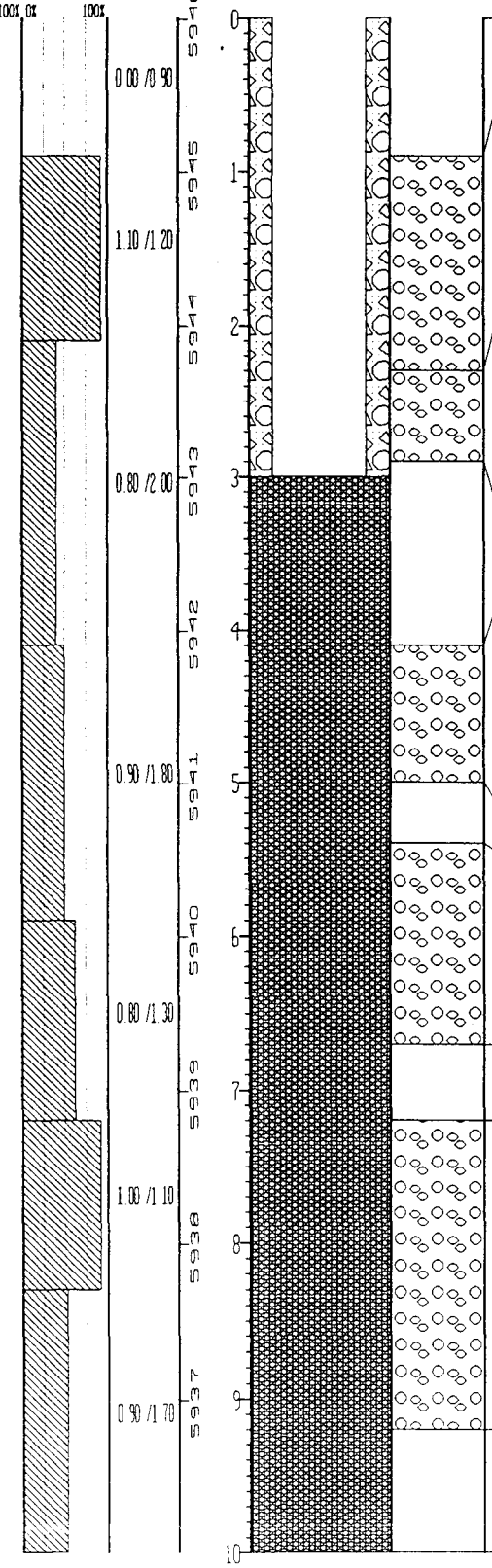
STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 66.0	GROUND ELEVATION (FT):	5946.01	PROJECT NUMBER:	002/RI
NORTH: 750072.21	AREA: NE TRENCHES	CASING DIAMETER (IN):		GEOLOGIST:	L.A. GUST
EAST: 2087615.12	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	6.57	DATE DRILLED:	09/27/91

LOG OF BORING NUMBER: 11391

REMARKS: HOLLOW STEM AUGER.
WELL WAS ABANDONED DUE TO WATER INFLUX, OFFSET TO WELL 05391

BACKFILL MATERIAL: BENTONITE 66.0 FT. - 3.0 FT.

CHEMICAL SAMPLE
GRADATIONAL SA
DEPTH
SAMPLE NUMBER
SAMPLE GRAIN SIZE (0% 50% 100%)
PERCENT RECOVERY (0% 100%)
RECOVERY/INTERVAL
DATUM (FT)
DEPTH (FT)
WELL OR PIEZOMETER CONSTRUCTION
LITHOLOGY
UNIFIED SOILS CLASSIFICATION OR ROCK TYPE
DESCRIPTION



	Top soil, start of boring at 0.90 ft.
GW	Sandy Gravel - grayish black (N2), maximum size gravel 1" diameter, average size 1/4" diameter, coarse- to fine-grained sand, well graded, sub-angular, low plasticity, gravel primarily quartzite, dominant lithology sand quartz with some dark minerals, trace mica and caliche, some caliche coating around gravel, no apparent bedding, moist, abundant roots. 70% gravel, 26% sand, 4% silt
GW	Sandy Gravel - light olive gray (5Y6/1), maximum gravel size 3" diameter, average 1" diameter, coarse- to fine-grained sand, well graded, sub-angular gravel, sub-angular to sub-rounded sand, low plasticity, gravel primarily quartzite with some granite, dominant lithology of sand quartz, with some K-spar and mica and trace dark minerals, abundant caliche throughout interval, caliche coating on gravel, no apparent bedding, dry. 73% gravel, 24% sand, 3% silt
	No recovery for this interval
GW	Sandy Gravel - moderate yellowish brown (10YR5/4), maximum gravel size 2" diameter, average size 3/4", coarse- to fine-grained sand, well graded, gravel sub-angular to sub-rounded, sand sub-angular, low plasticity, gravel primarily quartzite and granite, dominant lithology of sand quartz with some K-spar and mica, trace dark minerals, trace iron staining on grains, some caliche coating at 4.1-4.6', no apparent bedding, dry. 59% gravel, 37% sand, 4% clay
	No recovery for this interval
GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, increase in sand at 5.9-6.5'.
	No recovery for this interval
GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, increase in iron staining at 8.5-9.2'
	No recovery for this interval

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 66.0	GROUND ELEVATION (FT): 5946.01	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:	
NORTH: 750072.21	AREA: NE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: L.A. GUST	11391	
EAST: 2087615.12	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN): 6.57	DATE DRILLED: 09/27/91		
REMARKS: HOLLOW STEM AUGER.		BACKFILL MATERIAL: BENTONITE 66.0 FT - 3.0 FT.			
WELL WAS ABANDONED DUE TO WATER INFLUX, OFFSET TO WELL 05391.					

CHEMICAL SAMPL
GRADATIONAL SA
DEPTH
SAMPLE NUMBER

SAMPLE GRAIN SIZE: 0% 50% 100%

PERCENT RECOVERY: 0% 100%

RECOVERY/INTERVAL: 0.90 /2.20; 0.80 /0.80; 0.70 /1.00; 1.10 /1.10; 1.80 /1.80; 1.70 /1.50; 2.00 /2.00

DATUM (FT): 5936, 5935, 5934, 5933, 5932, 5931, 5930, 5929, 5928, 5927

DEPTH (FT): 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20

WELL OR PIEZOMETER CONSTRUCTION

LITHOLOGY

UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
SC	Clayey Sand - moderate brown (5YR4/4) with some pale olive (10Y6/2) clay, maximum size gravel 1/4" diameter, coarse- to fine-grained sand, well graded, sub-rounded gravel, sub-angular sand, medium plasticity, gravel primarily quartzite, dominant lithology sand quartz with some rock fragments, trace mica and K-spar, trace iron staining on grains, no apparent bedding, moist. 6% gravel, 68% sand, 4% silt, 22% clay.
	No recovery for this interval.
GW	Sandy Gravel - moderate yellowish brown (10YR5/4), maximum gravel size 2" diameter, average size 1" diameter, coarse- to fine-grained sand, well graded, sub-rounded gravel, sub-angular to sub-rounded sand, low plasticity, gravel primarily quartzite and granite, dominant lithology sand quartz with some K-spar and mica, trace dark minerals, some iron staining on grains, no apparent bedding, dry. 75% gravel, 24% sand, 1% silt.
	No recovery for this interval.
SC	Clayey Sand - moderate brown (5YR4/4) with some light olive (10Y5/4) clay, coarse- to fine-grained sand, gravel size 1/5" diameter, well graded, sub-angular, high plasticity, dominant lithology sand quartz with some granite rock fragments trace mica, K-spar and dark minerals, trace iron staining on grains, trace carbonaceous material throughout interval, no apparent bedding, moist, no light olive color after 18.4'. 1% gravel, 71% sand, 3% silt, 25% clay. Water level at 15.4 ft.

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 66.0	GROUND ELEVATION (FT): 5946.01	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:	
NORTH: 750072.21	AREA: NE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: L.A. GUST	11391	
EAST: 2087615.12	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN): 6.57	DATE DRILLED: 09/27/91		
REMARKS: HOLLOW STEM AUGER.		BACKFILL MATERIAL: BENTONITE 66.0 FT. - 3.0 FT.			
WELL WAS ABANDONED DUE TO WATER INFLUX, OFFSET TO WELL 05391.					

CHEMICAL SAMPL / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%							
				1.80 /1.70	5925	21				
				1.90 /1.60	5923	23				
				1.60 /1.60	5922	24				
				1.10 /1.10	5921	25				
				0.90 /1.60	5920	26			SW	Gravelly Sand - dark yellowish brown (10YR4/2), maximum size gravel 2" diameter, average 3/4" diameter, coarse- to fine-grained sand, well graded, sub-angular, low plasticity, gravel primarily quartzite and granite, schist, dominant lithology sand quartz with some rock fragments and trace mica, K-spar, dark minerals and fibrous mineral, trace iron staining on grains, no apparent bedding, saturated 34% gravel, 65% sand, 1% silt
	BH00087W002				5919	27				VOA sample obtained from this interval
				1.20 /2.00	5918	28			SW	Gravelly Sand - dark yellowish brown (10YR4/2), as described above, pea-size gravel at 28.0-29.2'
					5917	29				No recovery for this interval
						30				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 66.0	GROUND ELEVATION (FT): 5946.01	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:
NORTH: 750072.21	AREA: NE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: L.A. GUST	11391
EAST: 2087615.12	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN): 6.57	DATE DRILLED: 09/27/91	

REMARKS: HOLLOW STEM AUGER.
WELL WAS ABANDONED DUE TO WATER INFLUX, OFFSET TO WELL 05391.

BACKFILL MATERIAL: BENTONITE 66.0 FT. - 3.0 FT.

CHEMICAL SAMPLE	GRADATIONAL SA	DEPTH	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
							5916	30				
						0.00 /2.10	5915	31				
							5914	32				
						0.00 /1.80	5913	33				
							5912	34				
						0.00 /1.60	5911	35				
							5910	36			SC:	Clayey Sand - moderate greenish yellow (10Y7/4), maximum size gravel 1/4" diameter, coarse- to fine-grained sand, well graded, sub-angular, high plasticity, gravel primarily quartzite with trace granite, dominant lithology of sand quartz with some dark minerals and trace K-spar, no apparent bedding, saturated, large size gravel at 35.3-35.5'. 2% gravel, 68% sand, 3% silt, 27% clay. Top bedrock at 37.5 ft.
						1.40 /2.50	5909	37				
			BH00894C02									VOA sample obtained from this interval.
							5908	38			SILTY SANDSTONE:	Silty Sandstone - pale olive (10Y6/2) to light olive brown (5Y5/6), fine- to very-fine grained sand, well sorted, approximately 25% porosity, argillaceous cement, highly friable, dominant lithology sand clear quartz with trace mica and dark minerals, trace iron staining on grains, trace clay clasts throughout interval, trace carbonaceous material throughout interval, some limonite oxidation throughout interval, no apparent bedding, massive sand, no fractures, saturated, weathered. 70% sand, 20% silt, 10% clay.
						1.00 /2.00	5907	39				
								40				No recovery for this interval

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 66.0	GROUND ELEVATION (FT): 5946.01	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:	
NORTH: 750072.21	AREA: NE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: L.A. GUST	11391	
EAST: 2087615.12	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN): 6.57	DATE DRILLED: 09/27/91		
REMARKS: HOLLOW STEM AUGER.		BACKFILL MATERIAL: BENTONITE 66.0 FT. - 3.0 FT.			
WELL WAS ABANDONED DUE TO WATER INFLUX, OFFSET TO WELL 05391.					

CHEMICAL SAMPL
GRADATIONAL SA
SAMPLE NUMBER
DEPTH

SAMPLE GRAIN SIZE: 0% 50% 100%

PERCENT RECOVERY: 0% 100%

RECOVERY/INTERVAL: 2.00 /2.00; 0.80 /2.10; 1.00 /1.90; 1.30 /2.00; 1.20 /2.00

DATUM (FT): 5906, 5905, 5904, 5903, 5902, 5901, 5900, 5899, 5898, 5897

DEPTH (FT): 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50

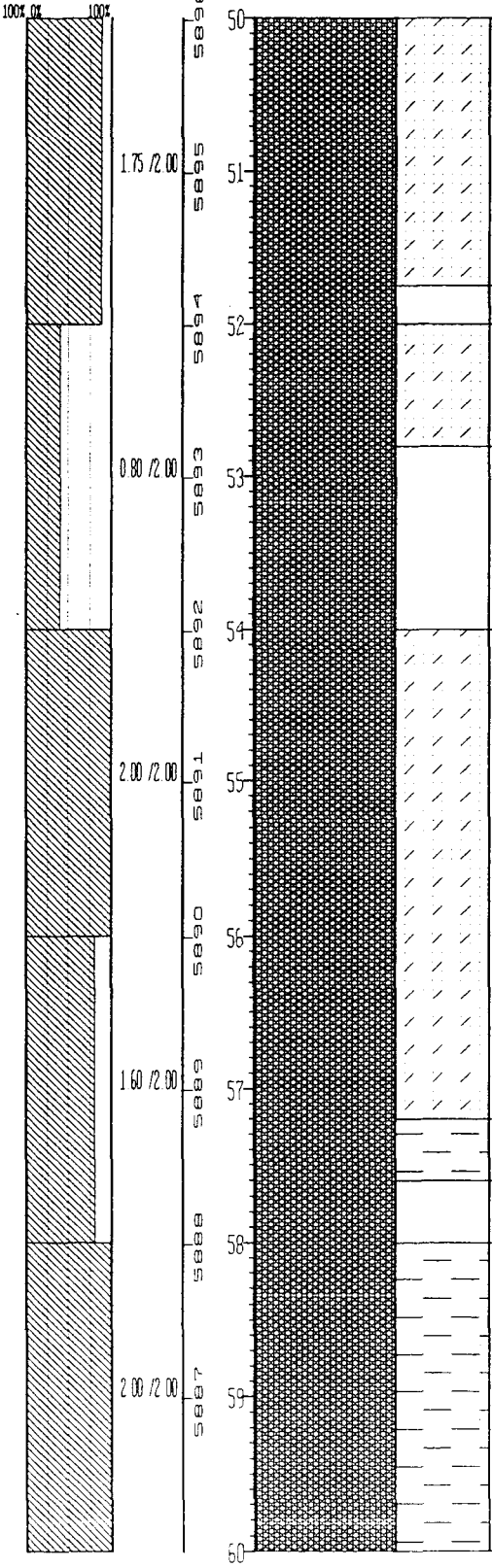
WELL OR PIEZOMETER CONSTRUCTION

LITHOLOGY

UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
SILTY SANDSTONE	Silty Sandstone - pale olive (10Y6/2) to light olive brown (5Y5/6), as described above.
	No recovery for this interval.
SILTY SANDSTONE	Silty Sandstone - pale olive (10Y6/2) to light olive brown (5Y5/6), as described above.
	No recovery for this interval.
SILTY SANDSTONE	Silty Sandstone - pale olive (10Y6/2) to light olive brown (5Y5/6), as described above.
	No recovery for this interval.
SILTY SANDSTONE	Silty Sandstone - pale olive (10Y6/2) to light olive brown (5Y5/6), as described above, increase in clay content at 48.0-48.5'
	No recovery for this interval.

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 66.0	GROUND ELEVATION (FT): 5946.01	PROJECT NUMBER: 002/RI	LOG OF BORING NUMBER:	
NORTH: 750072.21	AREA: NE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: L.A. GUST	11391	
EAST: 2087615.12	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN): 6.57	DATE DRILLED: 09/27/91		
REMARKS: HOLLOW STEM AUGER		BACKFILL MATERIAL: BENTONITE 66.0 FT. - 3.0 FT.			
WELL WAS ABANDONED DUE TO WATER INFLUX, OFFSET TO WELL 05391.					

CHEMICAL SAMPL
GRADATIONAL SA
SAMPLE NUMBER
SAMPLE GRAIN SIZE (0% 50% 100%)
PERCENT RECOVERY (0% 100%)
RECOVERY/INTERVAL
DATUM(FT)
DEPTH(FT)
WELL OR PIEZOMETER CONSTRUCTION
LITHOLOGY



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
SILTY SANDSTONE	Silty Sandstone - pale olive (10Y6/2) to light olive brown (5Y5/6), as described above, increase to some carbonaceous material and some laminated 30 degree bedding with clay deformation at 50.0-50.6', increase in limonite oxidation at 50.6-52.8'
	No recovery for this interval.
SILTY SANDSTONE	Silty Sandstone - pale olive (10Y6/2) to light olive brown (5Y5/6), as described above, large clay clast at 52.1'
	No recovery for this interval.
SILTY SANDSTONE	Silty Sandstone with some clay - dark gray (N3) to light olive brown (5Y5/6), fine- to very-fine grained sand, well sorted, angular to sub-angular, approximately 20% porosity, argillaceous cement, highly to moderately friable, dominant lithology sand quartz with trace K-spar, mica and dark minerals, some iron staining on grains, trace carbonaceous material throughout interval, horizontal to 5 degree bedding 54.6-55.5', no apparent fractures, wet to saturated, alternating oxide and gray bands throughout interval, some clay clasts, clay deformation throughout interval, interbedded clay lenses with clay deformation at 56.1-56.2', 56.4-56.5' and 56.8-56.9'. 66% sand, 20% silt, 14% clay
CLAYEY SANDSTONE	Clayey Sandstone - dark gray (N3), as described below
	No recovery for this interval
CLAYEY SANDSTONE	Clayey Sandstone - dark gray (N3), medium- to very fine-grained sand, moderately sorted, sub-angular to sub-rounded, approximately 25% porosity, argillaceous cement, highly friable, dominant lithology sand clear quartz, trace dark minerals, trace iron staining on grains, trace carbonaceous material and limonite throughout interval, massive, no apparent bedding, fracture of 55 degrees at 62.6', wet, trace clay clasts, increase in coarseness of sand downhole, increase in clay content 60.0-61.2', increase in clay clasts at 62.3', trace horizontal bedding and clay deformation

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 66.0	GROUND ELEVATION (FT): 5946.01	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:	
NORTH: 750072.21	AREA: NE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: L.A. GUST	11391	
EAST: 2087615.12	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN): 6.57	DATE DRILLED: 09/27/91		
REMARKS: HOLLOW STEM AUGER.		BACKFILL MATERIAL: BENTONITE 66.0 FT. - 3.0 FT.			
WELL WAS ABANDONED DUE TO WATER INFLUX, OFFSET TO WELL 05391.					

CHEMICAL SAMPLE
GRADATIONAL SA
SAMPLE NUMBER
DEPTH

SAMPLE GRAIN SIZE: 0% 50% 100%

PERCENT RECOVERY: 0% 100%

RECOVERY/INTERVAL: 2.00 /2.00; 2.00 /2.00; 1.20 /1.20; 0.80 /0.80

DATUM (FT): 5886, 5885, 5884, 5883, 5882, 5881, 5880, 5879, 5878, 5877

DEPTH (FT): 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70

WELL OR PIEZOMETER CONSTRUCTION

LITHOLOGY

UNIFIED SOILS CLASSIFICATION OR ROCK TYPE

DESCRIPTION

at 62.8-63.5', saturated 64.0-66.0'.
69% sand, 8% silt, 23% clay.

Total depth at 66.0 ft.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 27.3	GROUND ELEVATION (FT):	5948.22	PROJECT NUMBER:	OU2/RI
NORTH:	750034.63	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST:	2087628.36	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/09/91

LOG OF BORING NUMBER: 11491

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 8.0 FT. - 5.0 FT. THIS WELL IS AN OFFSET TO WELL 05691. RECOVERY IS NOT RECORDED FROM SURFACE TO 24 FT. SINCE CUTTINGS SAMPLES WERE TAKEN DOWN TO 24. FT.

CHEMICAL SAMPT / GRADATIONAL S/	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					5948	0				Top soil, start of boring at 0.90 ft.
					5947	1			GW	Sandy Gravel - light olive gray (5Y6/1), maximum gravel size 1 1/2", average 1/2" diameter, coarse- to fine-grained sand, well graded, sub-angular to sub-rounded sand, sub-rounded gravel, low plasticity, gravel primarily quartzite and granite, dominant lithology sand quartz with some rock fragments and mica, trace dark minerals, abundant caliche throughout interval, dry, some roots at top of interval. 61% gravel, 29% sand, 6% silt, 4% clay.
					5946	2				
					5945	3				
					5944	4				
					5943	5				
					5942	6			SC	Clayey Sand with some gravel - moderate brown (5YR4/4), coarse- to fine-grained sand, maximum size gravel 1/2" diameter, average size 1/4" diameter, well graded, sub-angular, medium plasticity, dominant lithology sand quartz with some rock fragments, trace mica, dark minerals and K-spar, gravel primarily quartzite and granite, some caliche, moist. 5% gravel, 68% sand, 2% silt, 25% clay.
					5941	7				
					5940	8			GW	Sandy Gravel - moderate yellowish brown (10YR4/1), maximum gravel size 1" diameter, average size 1/4" diameter, coarse- to fine-grained sand, well graded, sub-rounded gravel, sub-angular to sub-rounded sand, low plasticity, gravel primarily quartzite and granite, dominant lithology sand quartz with some rock fragments, trace mica and dark minerals, trace iron staining on grains, some caliche throughout interval, no apparent bedding, moist, increase in sand at 16.0' to 20.0'. 59% gravel, 28% sand, 5% silt, 8% clay.
					5939	9				
						10				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 27.3		GROUND ELEVATION (FT):	5948.22	PROJECT NUMBER:	OU2/RI
NORTH:	750034.63	AREA: NE TRENCHES		CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST:	2087628.36	LOCATOR NUMBER:	I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/09/91

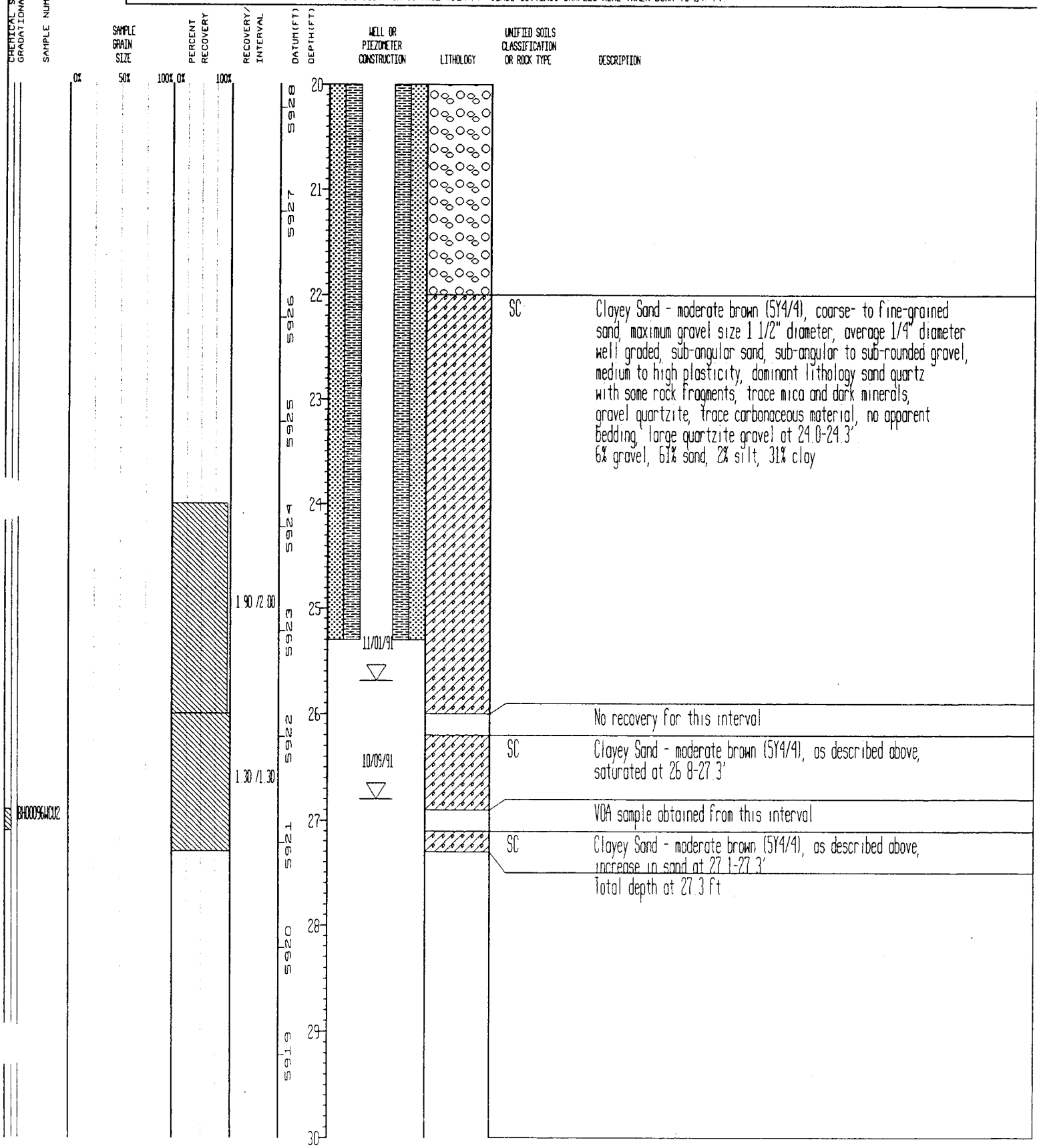
LOG OF BORING NUMBER: 11491

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 8.0 FT - 5.0 FT. THIS WELL IS AN OFFSET TO WELL 05691. RECOVERY IS NOT RECORDED FROM SURFACE TO 24 FT. SINCE CUTTINGS SAMPLES WERE TAKEN DOWN TO 24. FT.

CHEMICAL SAMPL / GRADATIONAL S/	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
				0.00 /24.00	5938	10				
					5937	11				
					5936	12				
					5935	13				
					5934	14				
					5933	15				
					5932	16				
					5931	17				
					5930	18				
					5929	19				
						20				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 27.3	GROUND ELEVATION (FT):	5948.22	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	750034.63	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	11491
EAST:	2087628.36	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/09/91	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 8.0 FT. - 5.0 FT. THIS WELL IS AN OFFSET TO WELL 05691. RECOVERY IS NOT RECORDED FROM SURFACE TO 24 FT. SINCE CUTTINGS SAMPLES WERE TAKEN DOWN TO 24 FT.



STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 20.0	GROUND ELEVATION (FT): 5937.84	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:
NORTH: 750189.65	AREA: NE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: L.A. GUST	11591
EAST: 2087186.44	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 10/14/91	

REMARKS: BORING WAS ABANDONED DUE TO LOST AUGER FLIGHT IN HOLE, AUGER FLIGHT WAS RECOVERED. CUTTINGS SAMPLE WERE COLLECTED EVERY TWO FEET WITH THE EXCEPTION OF 3.0 FT. - 5.0 FT., 19.0 FT. - 20.0 FT., OFFSET TO 03791

DEPTH	CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			0% 50% 100%	0% 100%							Top soil, start of boring at 0.90 ft.
					0.00 /0.90	5937	0				
							1			SC	Organic Clayey Sand with some gravel - dark gray (N3), coarse- to fine-grained sand, maximum size gravel 1/2", average 1/4" diameter, well graded, sub-rounded, medium plasticity, dominant lithology sand quartz with some rock fragments, mica and dark minerals, gravel primarily quartzite and granite, no apparent bedding, dry, abundant caliche throughout interval, abundant roots present. 10% gravel, 55% sand, 8% silt, 27% clay.
					0.00 /2.10	5936	2				
						5935	3			SC	Caliche Clayey Sand - light brown (5YR6/4), coarse- to fine-grained sand, poorly graded, sub-angular, low plasticity, dominant lithology sand quartz with some rock fragments and dark minerals, trace mica, gravel primarily quartzite, abundant caliche throughout interval, some iron staining on grains, no apparent bedding, dry. 7% gravel, 67% sand, 4% silt, 21% clay.
		04001034D02			1.30 /2.00	5934	4				VOA sample obtained from this interval.
						5933	5				No recovery for this interval.
						5932	6			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), maximum size gravel 1/2", average size 1/4" diameter, coarse- to fine-grained sand, well graded, sub-angular, low plasticity, gravel primarily granite and quartzite, dominant lithology sand quartz with some granite and quartzite rock fragments, and trace dark minerals, mica and K-spar, abundant caliche throughout interval and coating on gravels, no apparent bedding due to cutting samples, moist to dry. 68% gravel, 25% sand, 1% silt, 6% clay. Top of bedrock at approximately 10.0 ft.
						5931	7				
						5930	8				
						5929	9				
						5928	10				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 20.0	GROUND ELEVATION (FT): 5937.84	PROJECT NUMBER: 002/RI	LOG OF BORING NUMBER:	
NORTH: 750189.65	AREA: NE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: L.A. GUST	11591	
EAST: 2087186.44	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 10/14/91		

REMARKS: BORING WAS ABANDONED DUE TO LOST AUGER FLIGHT IN HOLE, AUGER FLIGHT WAS RECOVERED. CUTTINGS SAMPLE WERE COLLECTED EVERY TWO FEET WITH THE EXCEPTION OF 3.0 FT. - 5.0 FT., 19.0 FT. - 20.0FT., OFFSET TO 03791

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					5927	10			CLAYSTONE	Claystone - grayish olive (10Y4/2), very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, argillaceous cement, non-friable, dominant lithology sand quartz with trace dark minerals and mica, trace iron staining on grains, no apparent bedding or fractures, moist, trace caliche at 13.0', weathered, trace pea-size gravel and iron nodules at 19.2'. 5% sand, 8% silt, 87% clay.
					5926	11				
				0.00 /14.00	5925	12				
					5924	13				
					5923	14				
					5922	15				
					5921	16				
					5920	17				
					5919	18			CLAYEY SANDSTONE	Clayey Sandstone - pale olive (10Y6/2), fine- to very fine-grained sand, well sorted, sub-angular to sub-rounded, approximately 20% porosity, highly friable, argillaceous cement, dominant lithology sand clear quartz with some dark minerals and trace mica, trace iron staining on grains, some iron staining throughout interval, no apparent bedding or fractures, moist, weathered. 6% sand, 8% silt, 71% clay.
				1.00 /1.00	5918	19				
						20				Total depth at 20.0 ft

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 34.0	GROUND ELEVATION (FT):	5938.63	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH: 750188.35	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	11691
EAST: 2087182.23	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/15/91	

REMARKS: BENTONITE SEAL 15.9 FT. - 12.8 FT. WELL CASING SET ON BOTTOM OF HOLE, NO BACKFILL. CUTTINGS WERE RECOVERED IN JARS EVERY TWO FEET WITH THE EXCEPTION OF 23.0 FT. -30.0 FT., OFFSET TO 03791.

CHEMICAL SAMPL / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
				0.00 /0.90	5938	0				Top soil, start of boring at 0.90 ft.
					5937	1			SC	Organic Clayey Sand - brownish black (5Y2/1), coarse- to fine-grained sand, well graded, sub-angular, medium plasticity, dominant lithology sand quartz with some rock fragments and dark minerals, trace mica and K-spar, gravel primarily quartzite and granite, abundant caliche throughout, no apparent bedding, moist, trace roots. 10% gravel, 61% sand, 3% silt, 26% clay
					5936	2				
					5935	3			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), maximum size gravel 1" diameter, average size 1/2" diameter, coarse- to fine-grained sand, well graded, sub-angular, low plasticity, gravel primarily quartzite and granite, dominant lithology sand quartz with some caliche, rock fragments, and trace dark minerals, mica and K-spar, abundant caliche throughout interval and coating on gravel, no apparent bedding, moist. 67% gravel, 23% sand, 2% silt, 8% clay. Top bedrock at approximately 9.5 ft
					5934	4				
					5933	5				
					5932	6				
					5931	7				
					5930	8				
					5929	9				
						10			CLAYSTONE	Claystone with some sand and silt - grayish olive (10Y4/2), very fine-grained sand, well sorted, sub-angular, approximately

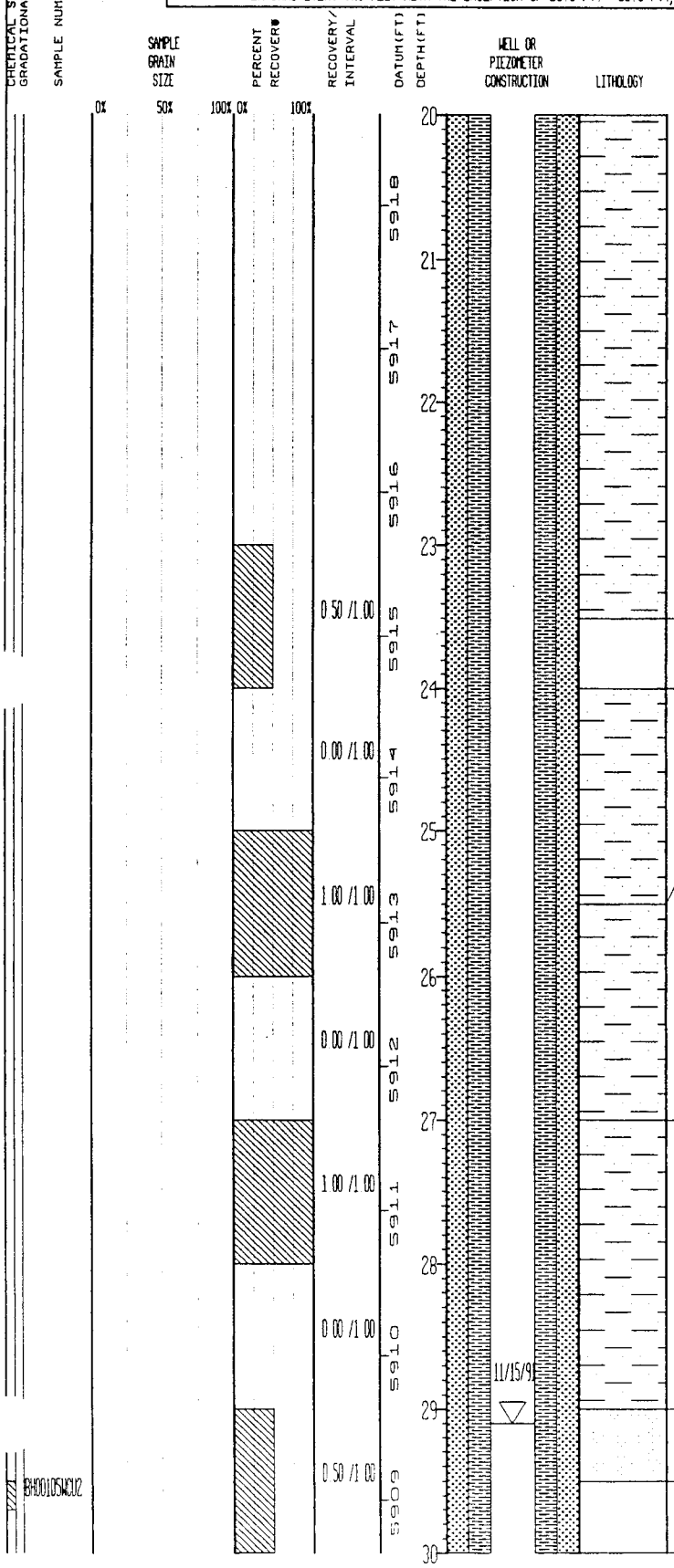
STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 34.0	GROUND ELEVATION (FT):	5938.63	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	750188.35	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	11691
EAST:	2087182.23	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/15/91	

REMARKS: BENTONITE SEAL 15.9 FT. - 12.8 FT. WELL CASING SET ON BOTTOM OF HOLE, NO BACKFILL. CUTTINGS WERE RECOVERED IN JARS EVERY TWO FEET WITH THE EXCEPTION OF 23.0 FT. - 30.0 FT., OFFSET TO 03791.

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
				0.00 /22.10	5928	10				10% porosity, argillaceous cement, non-friable, dominant lithology sand clear quartz with trace dark minerals and mica, trace iron staining on grains, some iron staining throughout interval, no apparent fractures or bedding due to cuttings sample, moist. 12% sand, 7% silt, 81% clay.
					5927	11				
					5926	12				
					5925	13				
					5924	14				
					5923	15				
					5922	16				
					5921	17			CLAYEY SANDSTONE	Clayey Sandstone - grayish olive (10Y4/2) to pale olive (10Y6/2), very fine-grained sand, well sorted, sub-angular, approximately 25% porosity, argillaceous cement, highly friable, dominant lithology sand clear quartz with some dark minerals and trace mica, some iron staining on grains, some iron staining throughout interval and trace manganese staining throughout interval, massive, no apparent bedding, vertical fracture with limonite staining at 23.3-23.4', some clay clasts throughout interval, moist. 69% sand, 10% silt, 21% clay.
					5920	18				
					5919	19				
						20				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 34.0	GROUND ELEVATION (FT):	5938.63	PROJECT NUMBER	0U28I	LOG OF BORING NUMBER:
NORTH:	750188.35	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	11691
EAST:	2087182.23	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/15/91	

REMARKS: BENTONITE SEAL 15.9 FT. - 12.8 FT. WELL CASING SET ON BOTTOM OF HOLE, NO BACKFILL. CUTTINGS WERE RECOVERED IN JARS EVERY TWO FEET WITH THE EXCEPTION OF 23.0 FT. -30.0 FT., OFFSET TO 03791.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	No recovery for this interval
CLAYEY SANDSTONE	Clayey Sandstone - grayish olive (10Y4/2) to pale olive (10Y6/2), as described above, increase in iron staining at 23.0-25.0'
CLAYEY SANDSTONE	Clayey Sandstone with some silt - pale olive (10Y6/2), very fine-grained sand, well sorted, sub-angular, approximately 15% porosity, argillaceous cement, slightly to moderately friable, dominant lithology sand clear quartz with some dark minerals and trace mica and K-spar, trace iron staining on grains, trace horizontal bedding with very thin clay laminations, no apparent fractures, moist, trace clay clasts throughout. 64% sand, 8% silt, 28% clay
CLAYEY SANDSTONE	Clayey Sandstone with some silt - dark yellowish orange (10YR6/6), fine- to very fine-grained sand, well sorted, sub-angular, approximately 20% porosity, argillaceous cement, moderately friable, dominant lithology sand clear quartz with some dark minerals and trace mica, abundant iron staining on grains and throughout interval, some limonite nodules throughout interval, some convoluted bedding at 27.5-27.7', trace vertical fractures healed with iron, moist. 58% sand, 16% silt, 26% clay
SANDSTONE	Sandstone with some silt - pale olive (10Y6/2), as described below
	VOA sample obtained from this interval

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STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 34.0	GROUND ELEVATION (FT):	5938.63	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH:	750188.35	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	11691
EAST:	2087182.23	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/15/91	

REMARKS: BENTONITE SEAL 15.9 FT. - 12.8 FT. WELL CASING SET ON BOTTOM OF HOLE, NO BACKFILL. CUTTINGS WERE RECOVERED IN JARS EVERY TWO FEET WITH THE EXCEPTION OF 23.0 FT. -30.0 FT., OFFSET TO 03791.

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
				0.00 /4.00	5908	30			SANDSTONE:	Sandstone with some silt - pale olive (10Y6/2), fine- to very fine-grained sand, well sorted, sub-angular to sub-rounded, approximately 25% porosity, argillaceous cement, highly friable, dominant lithology sand clear quartz with trace dark minerals, trace iron staining on grains, trace limonite nodules, massive, no apparent bedding or fractures, saturated. 82% sand, 12% silt, 6% clay.
					5907	31				
						32	01/07/92			
					5906	33				
					5905	34				Total depth 34.0 ft.
					5904	35				
					5903	36				
					5902	37				
					5901	38				
					5900	39				
					5899	40				

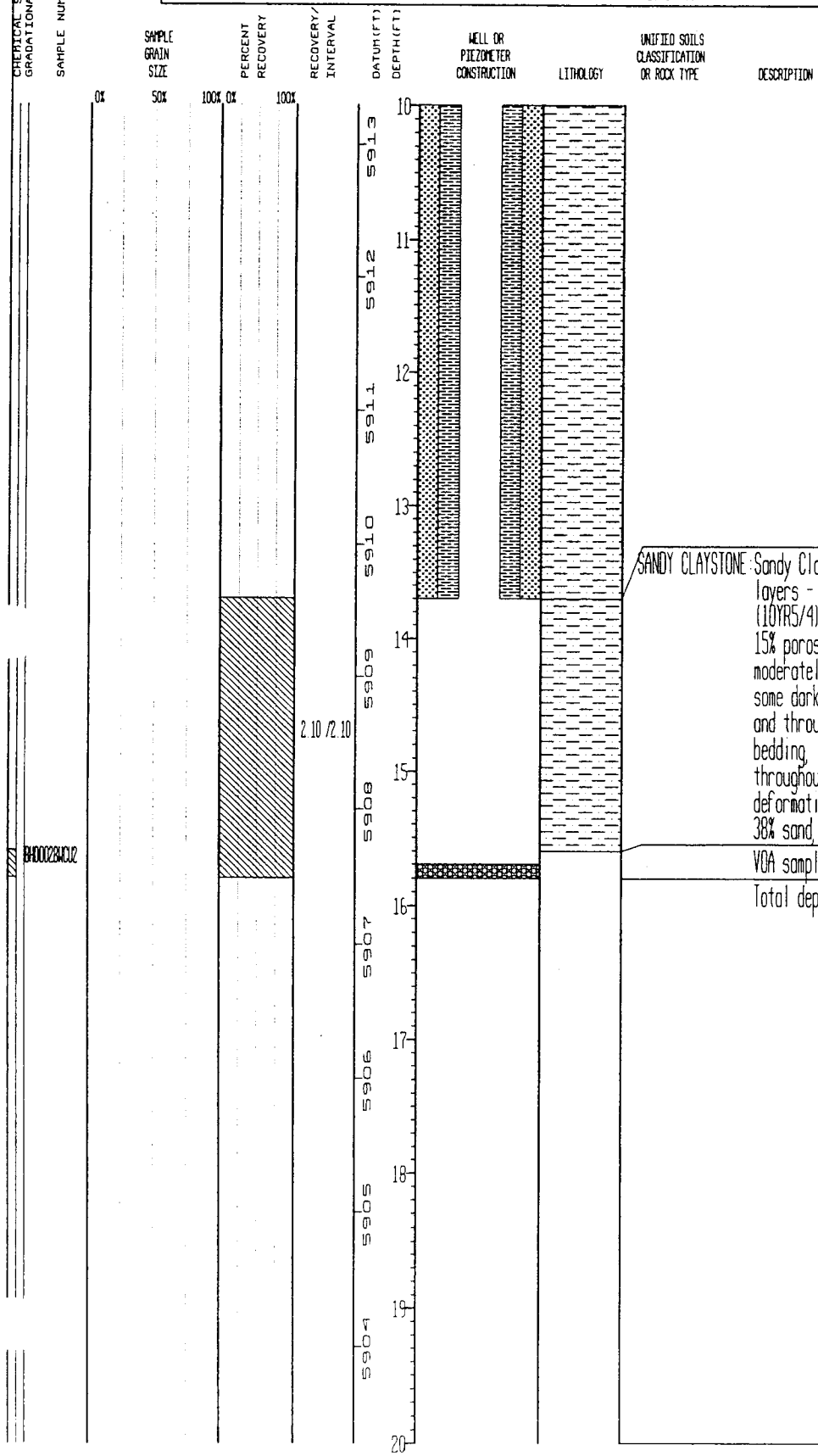
STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 15.8	GROUND ELEVATION (FT):	5923.29	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	748900.08	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	11791
EAST:	2086785.87	LOCATOR NUMBER: 613	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/16/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 8.2 FT. - 4.9 FT. BACKFILL MATERIAL: BENTONITE 15.8 FT. - 15.7 FT. OFFSET TO 00391, CUTTINGS COLLECTED EVERY TWO FEET WITH THE EXCEPTION OF 13.7 FT. - 15.8 FT.

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
				0.00 /0.90	5923	0				Top soil, start of boring at 0.90 ft
				0.00 /2.00	5922, 5921	1, 2			CL	Organic Sandy Clay with some silt - dark gray (N3), medium- to fine-grained sand, poorly graded, sub-angular, medium plasticity, dominant lithology sand quartz with some rock fragments and dark minerals, no apparent bedding, moist, trace caliche throughout interval, some root present. 28% sand, 8% silt, 64% clay.
					5920, 5919, 5918, 5917	3, 4, 5, 6			CL	Silty Clay with some sand - light olive (10Y5/4) to dark yellowish orange (10YR6/6), very fine-grained sand, poorly graded, angular to sub-angular, medium plasticity, dominant lithology quartz rose, milky and clear, with some K-spar and trace mica and dark minerals, abundant iron staining on grains, some caliche throughout interval, no apparent bedding due to cutting sample, moist, some root present. 20% sand, 32% silt, 48% clay. Top of bedrock at 6.9 ft
				0.00 /10.80	5916, 5915, 5914	7, 8, 9, 10			SANDY CLAYSTONE	Sandy Claystone with some silt - light olive (10Y5/4), very fine-grained sand, well sorted, sub-angular, approximately 15% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with some dark minerals, trace mica, trace iron staining on grains, no apparent bedding or fractures due to cuttings sample, moist, weathered. 29% sand, 7% silt, 64% clay

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 15.8	GROUND ELEVATION (FT):	5923.29	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	748900.08	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	11791
EAST:	2086785.87	LOCATOR NUMBER: 613	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/16/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 8.2 FT. - 4.9 FT. BACKFILL MATERIAL: BENTONITE 15.8 FT. - 15.7 FT. OFFSET TO 00391, CUTTINGS COLLECTED EVERY TWO FEET WITH THE EXCEPTION OF 13.7 FT. - 15.8 FT.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
SANDY CLAYSTONE	Sandy Claystone with some silt and interbedded sandstone layers - pale olive (10Y6/2) to moderate yellowish brown (10YR5/4), very fine-grained sand, well sorted, approximately 15% porosity, sub-angular, argillaceous cement, slight to moderately friable, dominant lithology sand clear quartz with some dark minerals and trace mica, some iron staining on grains and throughout interval, trace carbonaceous material, no apparent bedding, vertical to 45 degree fractures healed with gray gouge throughout interval sand layer at 13.9-14.2', some soft sediment deformation at 13.8', moist, weathered. 38% sand, 15% silt, 47% clay.
	VOA sample obtained from this interval.
	Total depth at 15.8 ft.

STATE PLANE COORDINATE		TOTAL DEPTH (FT): 30.0	GROUND ELEVATION (FT):	5945.51	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	750032.64	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	11891
EAST:	2086999.21	LOCATOR NUMBER: I13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/23/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 11.0 FT. - 8.0 FT. NO BACKFILL, CASING WAS SET ON BOTTOM OF HOLE. CUTTINGS WERE COLLECTED IN JARS EVERY TWO FEET WITH THE EXCEPTION OF 21.1 FT. - 23.0 FT OFFSET TO 03391.

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
						0				Top soil, start of boring at 0.90 ft
				0.00 /0.90	5945				GC:	Sandy Gravel with some clay - dark reddish brown (10R3/4), maximum size gravel 1/2" diameter, average 1/4" diameter, coarse- to fine-grained sand, well graded, sub-angular, low plasticity, gravel primarily granite and quartzite, dominant lithology sand quartz with some rock fragments and trace dark minerals and mica, no apparent bedding due to sample type, moist, abundant roots. 45% gravel, 35% sand, 5% silt, 15% clay
				0.00 /1.10	5944	1				
						2			GW:	Sandy Gravel with some clay - pale yellowish orange (10YR8/6), maximum gravel size 1" diameter, average size 1/4" diameter, coarse- to fine-grained sand, well graded, sub-angular, low plasticity, gravel primarily granite and quartzite, dominant lithology sand quartz with some rock fragments and trace dark minerals, mica and K-spar, no apparent bedding due to sample type, moist, abundant caliche throughout interval. 70% gravel, 21% sand, 2% silt, 7% clay.
				0.00 /2.00	5943	3				
					5942	4				
					5941					
				0.00 /2.00		5				
					5940	6				
					5939					
				0.00 /2.00		7				
					5938	8			GW:	Sandy Gravel with some clay - dark yellowish brown (10YR6/6), maximum size gravel 1" diameter, average size 1/4" diameter, coarse- to fine-grained sand, well graded, sub-angular to sub-rounded, gravel primarily granite and quartzite, dominant lithology sand quartz with some rock fragments and dark minerals, trace mica and K-spar, trace iron staining on grains, trace caliche throughout, no apparent bedding due to sample type, moist 58% gravel, 32% sand, 3% silt, 7% clay Top of bedrock at approximately 12.0 ft
				0.00 /2.00	5937	9				
					5936	10				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 30.0	GROUND ELEVATION (FT):	5945.51	PROJECT NUMBER:	002/RI	LOG OF BORING NUMBER:
NORTH:	750032.64	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	11891
EAST:	2086999.21	LOCATOR NUMBER: I13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/23/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 11.0 FT. - 8.0 FT. NO BACKFILL, CASING WAS SET ON BOTTOM OF HOLE. CUTTINGS WERE COLLECTED IN JARS EVERY TWO FEET WITH THE EXCEPTION OF 21.1 FT. - 23.0 FT. OFFSET TO 03391

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
				0.00 /2.00	5935	10–11				
				0.00 /2.00	5934	11–12				
				0.00 /2.00	5933	12–13			SILTY SANDSTONE	Silty Sandstone with some clay - pale olive (10Y4/2), fine- to very fine-grained sand, well sorted, sub-angular, approximately 20% porosity, argillaceous cement, moderately friable, dominant lithology sand clear quartz with some K-spar and trace mica and dark minerals, some iron staining throughout interval, moist, no apparent bedding or fractures due to sample type. 54% sand, 35% silt, 11% clay.
				0.00 /2.00	5932	13–14				
				0.00 /2.00	5931	14–15				
				0.00 /2.00	5930	15–16				
				0.00 /2.00	5929	16–17				
				0.00 /2.00	5928	17–18				
				0.00 /2.00	5927	18–19			SANDY SILTSTONE	Sandy Siltstone with some clay - dark yellowish orange (10YR6/6), very fine-grained sand, well sorted, approximately 15% porosity, sub-angular, argillaceous cement, moderately friable, dominant lithology sand clear quartz with trace dark minerals and mica, trace iron staining on grains, no apparent bedding or fractures due to sample type, moist, increase in iron staining at 21.1-23.0'. 30% sand, 52% silt, 18% clay.
					5926	19–20				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 30.0	GROUND ELEVATION (FT):	5945.51	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	750032.64	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	11891
EAST:	2086999.21	LOCATOR NUMBER: I13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	10/23/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 11.0 FT. - 8.0 FT. NO BACKFILL, CASING WAS SET ON BOTTOM OF HOLE. CUTTINGS WERE COLLECTED IN JARS EVERY TWO FEET WITH THE EXCEPTION OF 21.1 FT. - 23.0 FT. OFFSET TO 03391.

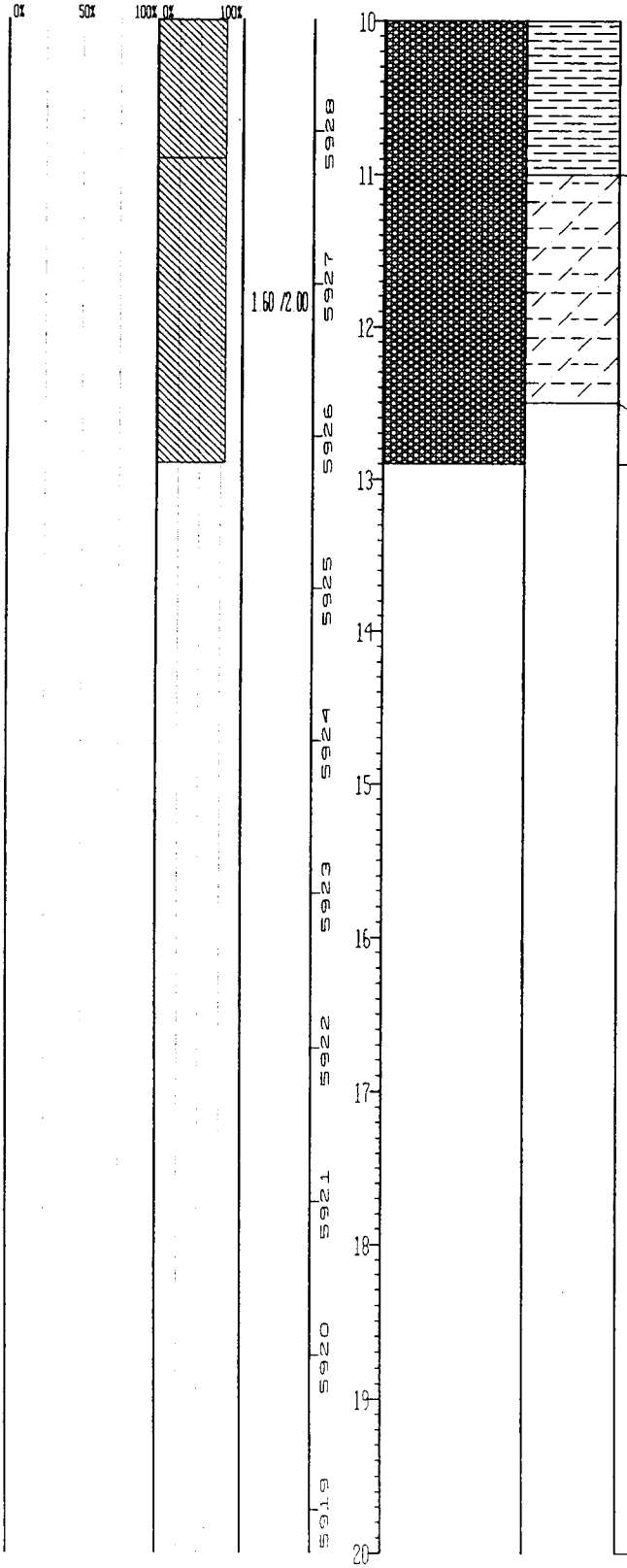
CHEMICAL SAMP / GRADATIONAL SI	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%							
				0.00 /1.10	5925	20				
						21				
					5924					
				1.90 /1.90		22				
					5923					
	BH001104C02						01/07/92			VOA sample obtained from this interval.
						23				SANDY SILTSTONE: Sandy Siltstone with some clay - dark yellowish orange (10YR6/6), as described above.
				0.00 /1.00	5922					
						24				SILTY SANDSTONE: Silty Sandstone with some clay - dusky yellow (5Y6/4), fine- to very fine-grained sand with trace coarse-grained sand, well sorted, sub-angular to sub-rounded, approximately 25% porosity, argillaceous cement, highly friable, dominant lithology sand clear quartz with trace mica and dark minerals, some iron staining on grains, no apparent bedding or fractures due to sample type, saturated. 62% sand, 29% silt, 9% clay
					5921					
				0.00 /2.00		25				
					5920					
						26				
					5919					
				0.00 /2.00		27				
					5918					
						28	10/23/91			
					5917					
				0.00 /2.00		29				
					5916					
						30				Total depth at 30.0 ft.

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 12.9	GROUND ELEVATION (FT): 5938.72	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:	
NORTH: 750216.66	AREA: NE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: L.A. GUST	11991	
EAST: 2087598.76	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN): 7.0	DATE DRILLED: 11/11/91		
REMARKS: HOLLOW STEM AUGER. TO SHALLOW BEDROCK, OFFSET TO WELL 03891.		BACKFILL MATERIAL: BENTONITE 12.9 - 3.0 FT.	WELL WAS ABANDONED DUE		

CHEMICAL SAMPL / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%							Top soil, start of boring at 0.90 ft.
				0.00 /0.90	5938	0			GM	Sandy Gravel with some silt and clay - dark reddish brown (10R3/4), maximum size gravel 1 1/2" diameter, average 1/2" diameter, coarse- to fine-grained sand, well graded, gravel sub-rounded to rounded, sand sub-angular to angular, low plasticity, gravel primarily quartzite with some granite, dominant lithology sand quartz with some rock fragments, trace mica, K-spar and pyrite, no apparent bedding, moist, abundant roots. 48% gravel, 37% sand, 9% silt, 6% clay
				0.60 /2.00	5937	1, 2				No recovery for this interval.
					5936	3			SC	Clayey Sand with some silt and gravel - pinkish gray (5YR8/1), as described below
				0.60 /2.00	5935	4				No recovery for this interval.
					5934	5			SC	Clayey Sand with some silt and gravel - pinkish gray (5YR8/1), fine- to very fine-grained sand, maximum size gravel 2" diameter, average 1" diameter, poorly graded, low plasticity, sub-angular sand, sub-rounded gravel, dominant lithology sand quartz with trace dark minerals, rock fragments and mica, gravel primarily quartzite with some granite, abundant caliche throughout, trace iron nodules 6.1-7.2', no apparent bedding, dry to moist. 5% gravel, 58% sand, 14% silt, 58% sand
				1.70 /2.00	5933	6				
					5932	7				No recovery for this interval
									SC	Clayey Sand with some silt and gravel - pinkish gray (5YR8/1), as described above. Top of bedrock at 7.2 ft.
				2.00 /1.50	5931	8			CLAYSTONE	Claystone with some sand and silt - pale olive (10Y6/2) to olive gray (5Y3/2), as described below, 1" diameter clay clast at 8.7'
	BH0004ZA002				5930	9				VOA sample obtained from this interval
				2.00 /2.50	5929	10			CLAYSTONE	Claystone with some sand and silt - pale olive (10Y6/2) to olive gray (5Y3/2), very fine-grained sand, well sorted, sub-angular, approximately 5% porosity, argillaceous cement, non- to slightly friable, dominant lithology sand quartz with trace iron nodules and mica, trace iron staining on

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 12.9	GROUND ELEVATION (FT): 5938.72	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:	
NORTH: 750216.66	AREA: NE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: L.A. GUST	11991	
EAST: 2087598.76	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN): 7.0	DATE DRILLED: 11/11/91		
REMARKS: HOLLOW STEM AUGER		BACKFILL MATERIAL: BENTONITE 12.9 - 3.0 FT	WELL WAS ABANDONED DUE		
TO SHALLOW BEDROCK, OFFSET TO WELL 03891.					

CHEMICAL SAMPLE DEPTH
GRADATIONAL SAMPLE DEPTH
SAMPLE NUMBER
SAMPLE GRAIN SIZE (0% 50% 100%)
PERCENT RECOVERY (0% 100%)
RECOVERY/INTERVAL
DATUM (FT)
DEPTH (FT)
WELL OR PIEZOMETER CONSTRUCTION
LITHOLOGY
UNIFIED SOILS CLASSIFICATION OR ROCK TYPE
DESCRIPTION



grains, caliche inclusions throughout, trace limonite, clay clasts and carbonaceous material throughout, no preferred bedding orientation, brecciated appearance, no apparent fractures, moist to very moist, slightly weathered.
10% sand, 5% silt, 85% clay.

SILTY CLAYSTONE: Silty Claystone with some sand - pale olive (10Y6/2) to dusky yellow (5Y6/4), very fine-grained sand, well sorted, sub-angular, approximately 10% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with some dark minerals and trace mica, trace iron staining on grains, some caliche throughout, trace iron nodules throughout, no preferred bedding orientation, no apparent fractures, moist, weathered.
6% sand, 22% silt, 72% clay.

No recovery for this interval.

Total depth at 12.9 ft.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 24.0	GROUND ELEVATION (FT):	5971.59	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749436.40	AREA: MOUND	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	12091
EAST:	2086008.99	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/15/91	

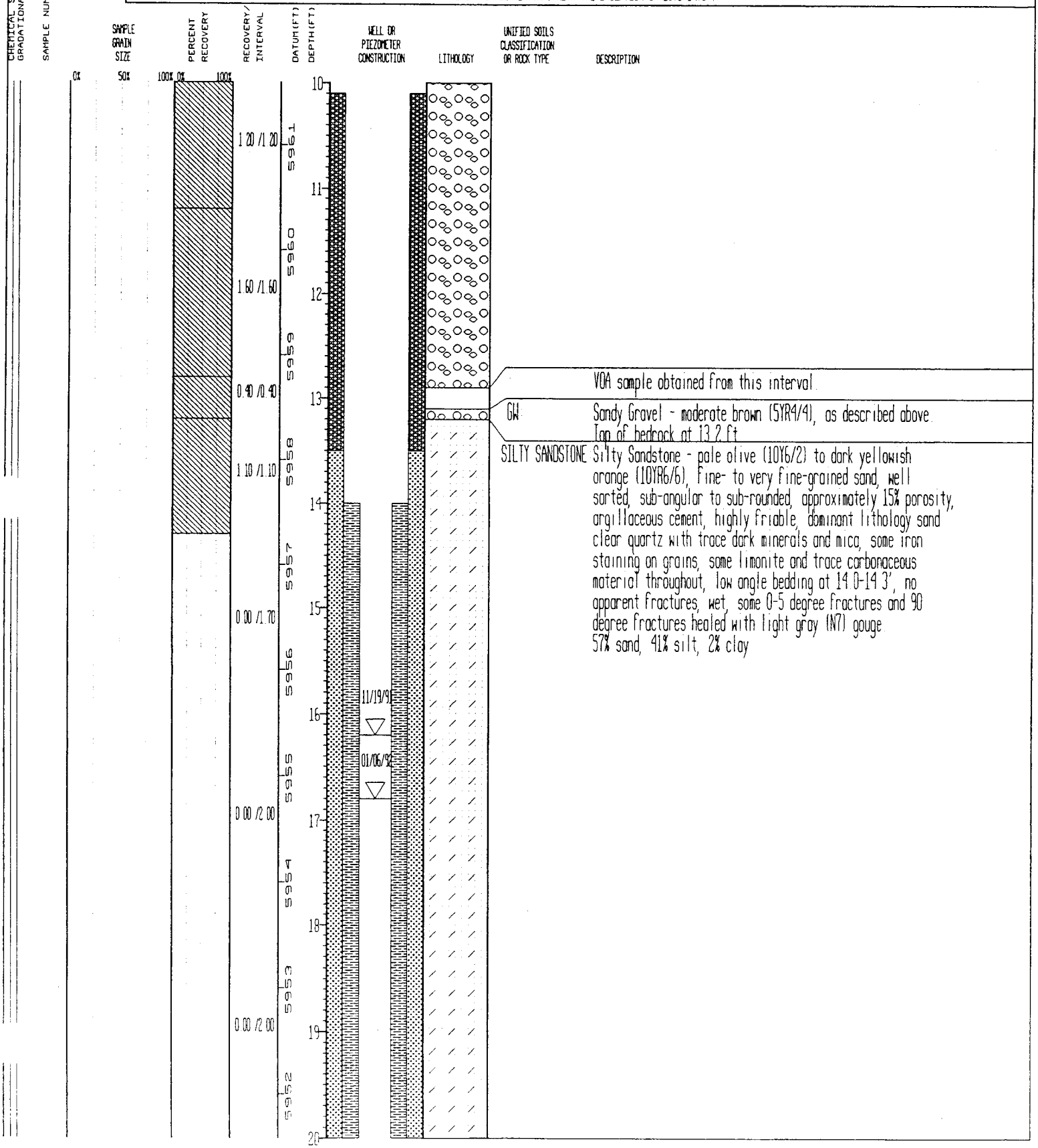
REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 13.5 FT. - 10.1 FT. BACKFILL MATERIAL: BENTONITE 24.5 FT. - 24.0 FT.
OFFSET TO WELL 01891. CUTTING SAMPLES WERE COLLECTED EVERY 2 FEET IN JARS WITH THE EXCEPTION OF 10.0-14.3'

CHEMICAL SAMPL
GRADATIONAL SA
SAMPLE NUMBER
DEPTH

SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
0% 50% 100%	0% 100%	0.00 /0.90	5971	0				Top soil, start of boring at 0.90 ft.
		0.00 /1.10	5970	1			GC	Sandy Gravel with some clay - grayish black (N2), maximum size gravel 1" diameter, average 1/4" diameter, coarse- to fine-grained sand, subangular, well graded, medium plasticity, gravel primarily quartzite with some granite, dominant lithology sand quartz with some rock fragments and trace dark minerals and mica, abundant caliche, no apparent bedding, dry. 53% gravel, 31% sand, 3% silt, 13% clay
		0.00 /2.00	5969	2			GW	Sandy Gravel - moderate brown (5YR4/4), maximum size gravel 1" diameter, average 1/4" diameter, coarse- to fine-grained sand, well graded, sub-angular to sub-rounded, low plasticity, gravel primarily quartzite with some granite, dominant lithology sand quartz with some rock fragments and trace dark minerals and mica, abundant caliche, no apparent bedding, moist. 64% gravel, 29% sand, 1% silt, 6% clay
		0.00 /2.00	5968	3				
		0.00 /2.00	5967	4				
		0.00 /2.00	5966	5				
		0.00 /2.00	5965	6				
		0.00 /2.00	5964	7				
		0.00 /2.00	5963	8				
			5962	9				
				10				

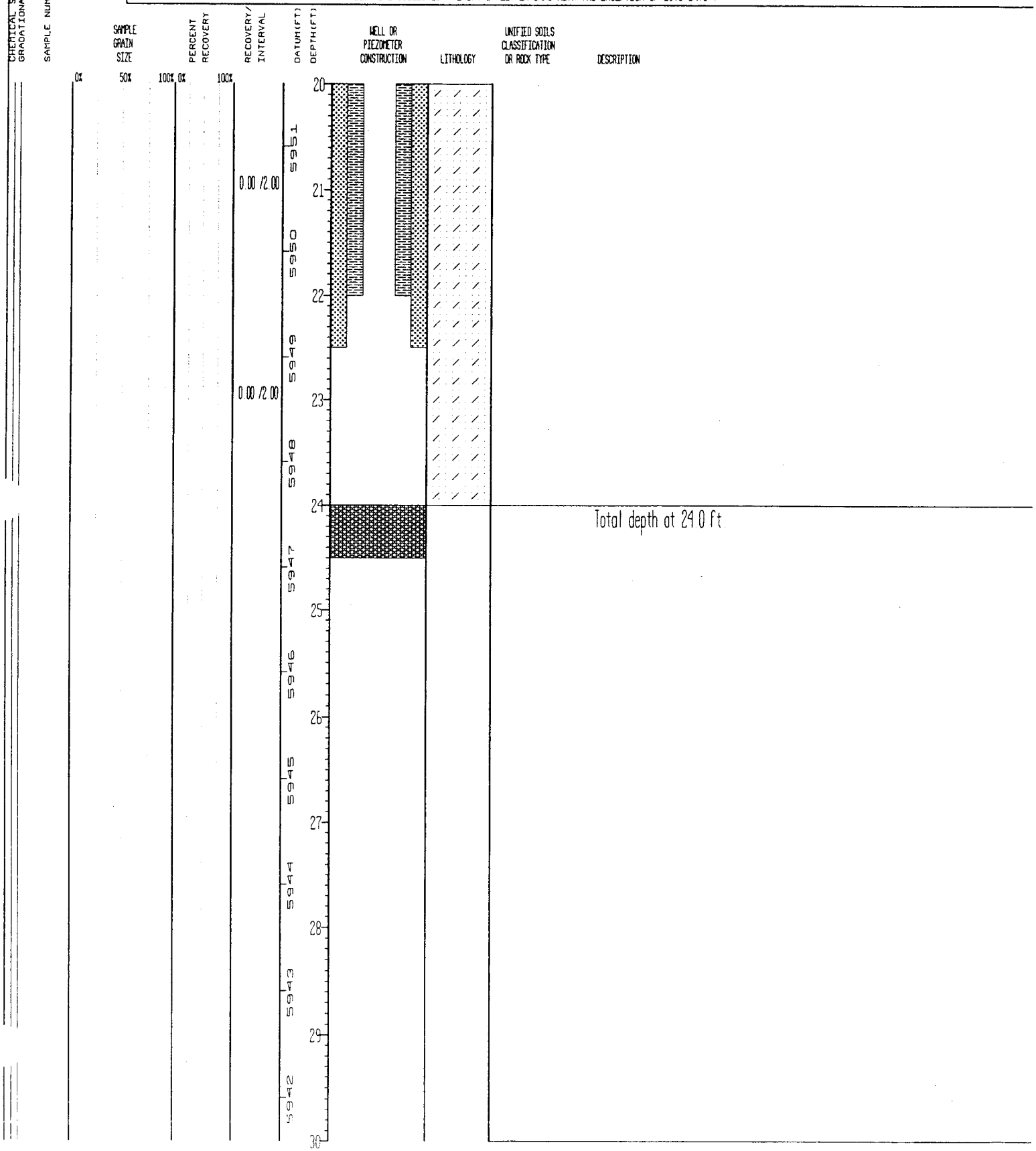
STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 24.0	GROUND ELEVATION (FT):	5971.59	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749436.40	AREA: MOUND	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	12091
EAST:	2086008.99	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/15/91	

REMARKS: HOLLOW STEM AUGER BENTONITE SEAL 13.5 FT. - 10.1 FT. BACKFILL MATERIAL: BENTONITE 24.5 FT. - 24.0 FT.
OFFSET TO WELL 01891. CUTTING SAMPLES WERE COLLECTED EVERY 2 FEET IN JARS WITH THE EXCEPTION OF 10.0-14.3'.



STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 24.0	GROUND ELEVATION (FT):	5971.59	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER
NORTH:	749436.40	AREA: MOUND	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	12091
EAST:	2086008.99	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/15/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 13.5 FT. - 10.1 FT. BACKFILL MATERIAL: BENTONITE 24.5 FT. - 24.0 FT.
OFFSET TO WELL D1891. CUTTING SAMPLES WERE COLLECTED EVERY 2 FEET IN JARS WITH THE EXCEPTION OF 10.0-14.3'.



STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 36.9	GROUND ELEVATION (FT):	5956.49	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749774.20	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	12191
EAST:	2086949.38	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/27/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 15.9 FT. - 12.7 FT. OFFSET TO WELL 02991, CUTTING SAMPLES WERE COLLECTED EVERY 2 FEET WITH THE EXCEPTION OF 15.0-16.8', AND 27.4-28.1'.

DEPTH	CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
										Top soil, start of boring at 0.90 ft.
0–2					0.00 /0.90; 0.00 /2.00	5956, 5955			GC	Sandy Gravel with some clay - grayish black (N2), maximum size gravel 1 1/2" diameter, average 3/4" diameter, coarse- to fine-grained sand, poorly graded, sub-rounded gravel, sub-angular sand, low plasticity, gravel primarily quartzite with some granite, dominant lithology sand quartz with some rock fragments and trace mica, dark minerals and K-spar, no apparent bedding, moist. 72% gravel, 19% sand, 2% silt, 7% clay.
2–4					0.00 /2.00; 0.00 /2.00	5954, 5953			GC	Sandy Gravel with some clay - moderate brown (5YR3/4), maximum size gravel 1" diameter, average 1/2" diameter, coarse- to fine-grained sand, well graded, sub-rounded gravel, sub-angular to sub-rounded sand, low to medium plasticity, gravel primarily quartzite, dominant lithology sand quartz with some rock fragments and trace dark minerals and mica, no apparent bedding, moist. 68% gravel, 20% sand, 2% silt, 10% clay.
4–10					0.00 /2.00; 0.00 /2.00; 0.00 /2.00; 0.00 /2.00; 0.00 /2.00	5952, 5951, 5950, 5949, 5948, 5947			GW	Sandy Gravel - moderate brown (5YR4/4), maximum size gravel 1 1/2" diameter, average 1" diameter, coarse- to fine-grained sand, well graded, sub-angular, low plasticity, gravel primarily quartzite with some granite, dominant lithology sand rock fragments with abundant quartz and trace dark minerals, mica and K-spar, abundant caliche throughout, no apparent bedding, dry. 67% gravel, 29% sand, 1% silt, 3% clay.

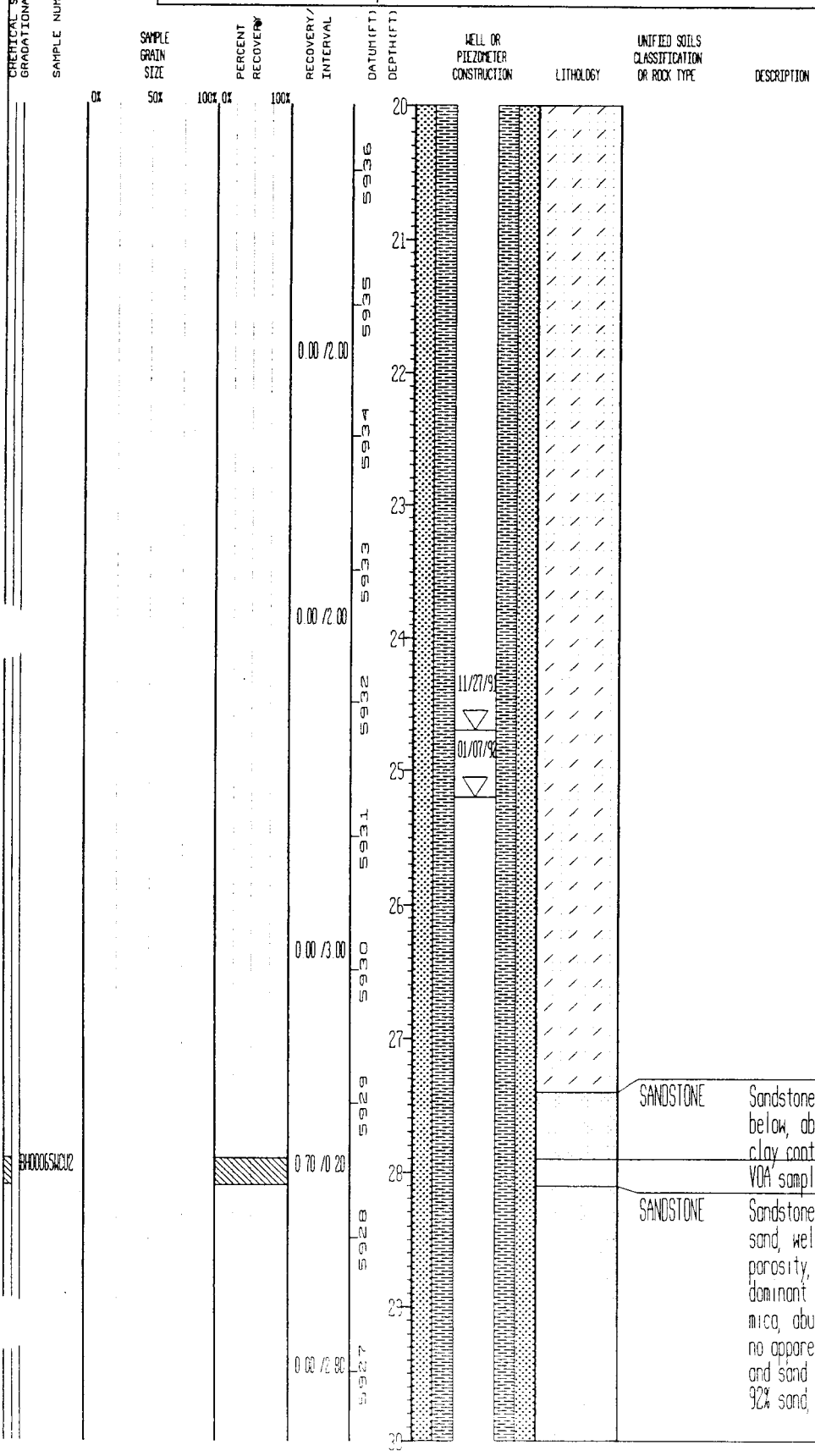
STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 36.9	GROUND ELEVATION (FT): 5956.49	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:
NORTH:	749774.20	AREA: NE TRENCHES	CASING DIAMETER (IN): 2.0	GEOLOGIST: L.A. GUST	12191
EAST:	2086949.38	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 11/27/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 15.9 FT. - 12.7 FT. OFFSET TO WELL 02991, CUTTING SAMPLES WERE COLLECTED EVERY 2 FEET WITH THE EXCEPTION OF 15.0-16.8', AND 27.4-28.1'

CHEMICAL SAMPL / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%							
					5946	10				
					5945	11			GW	Sandy Gravel - moderate brown (5YR4/4), maximum size gravel 1" diameter, average 1/4" diameter, coarse- to fine-grained sand, well graded, sub-rounded, low plasticity, gravel primarily quartzite with some granite and trace quartz, dominant lithology sand quartz with some rock fragments and dark minerals and trace mica, K-spar and pyrite, no apparent bedding, dry to moist. 58% gravel, 38% sand, 3% silt, 1% clay. Top of bedrock at 15.7 ft
				0.00 /2.00	5944	12				
					5943	13				
				0.00 /2.10	5942	14				
					5941	15				
				1.80 /1.80	5940	16			SILTY SANDSTONE	Silty Sandstone - pale olive (10Y6/2) to dusky yellow (5Y6/4), as described below
	BH00634C02									VOA sample obtained from this interval
					5939	17			SILTY SANDSTONE	Silty Sandstone - pale olive (10Y6/2) to dusky yellow (5Y6/4), fine- to very fine-grained sand, well sorted, sub-angular to sub-rounded, approximately 20% porosity, argillaceous cement, moderately to highly friable, dominant lithology sand clear quartz with some dark minerals and trace mica, trace iron staining on grains, some limonite throughout, trace horizontal bedding throughout, no apparent fractures, dry to moist, weathered 64% sand, 32% silt, 4% clay
				0.00 /2.10	5938	18				
					5937	19				
				0.30 /2.00		20				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 36.9	GROUND ELEVATION (FT):	5956.49	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749774.20	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	12191
EAST:	2086949.38	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/27/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 15.9 FT - 12.7 FT. OFFSET TO WELL 02991, CUTTING SAMPLES WERE COLLECTED EVERY 2 FEET WITH THE EXCEPTION OF 15.0-16.8', AND 27.4-28.1'.



SANDSTONE	Sandstone with some silt - dusky yellow (5Y6/4), as described below, abundant iron nodules at 27.8-27.9', increase in clay content with some 1" diameter quartzite at 27.6-27.8'
	VOA sample obtained from this interval
SANDSTONE	Sandstone with some silt - dusky yellow (5Y6/4), fine-grained sand, well sorted, sub-rounded to rounded, approximately 30% porosity, silica with trace argillaceous cement, highly friable, dominant lithology sand clear quartz with trace dark minerals and mica, abundant iron staining on grains, some limonite throughout, no apparent bedding or fractures, saturated, weathered, some clay and sand clasts at 28.9-30.9' 92% sand, 7% silt, 1% clay

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 36.9	GROUND ELEVATION (FT):	5956.49	PROJECT NUMBER:	002/RI	LOG OF BORING NUMBER:
NORTH:	749774.20	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	12191
EAST:	2086949.38	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	11/27/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 15.9 FT. - 12.7 FT. OFFSET TO WELL 02991, CUTTING SAMPLES WERE COLLECTED EVERY 2 FEET WITH THE EXCEPTION OF 15.0-16.8', AND 27.4-28.1'.

CHEMICAL SAMPLE	GEOTECHNICAL SAMPLE	DEPTH	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
				0% 50% 100%	0% 100%							
							5926	30				
							5925	31				
						0.00 /2.00	5924	32				
							5923	33				
						0.00 /2.00	5922	34				
							5921	35			CLAYEY SANDSTONE	Clayey Sandstone with some silt - dusky yellow (5Y6/4), fine- to very fine-grained sand, well sorted, sub-angular to sub-rounded, approximately 20% porosity, argillaceous cement, highly friable, dominant lithology sand clear quartz with trace dark minerals and mica, no apparent bedding or fractures due to sample type, saturated, weathered. 73% sand, 8% silt, 19% clay.
			*nB			0.00 /2.00	5920	36				
							5919	37				Total depth at 36.9 ft.
							5918	38				
							5917	39				
								40				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 16.1	GROUND ELEVATION (FT):	5970.98	PROJECT NUMBER:	OU2/RI
NORTH: 749428.77	AREA: MOUND	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST: 2085440.90	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	12/05/91

LOG OF BORING NUMBER: 12291

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 6.0 FT. - 3.0 FT. OFFSET TO WELL 01491
CUTTING SAMPLES OBTAINED AT 0.9-11.8', 13.9-16.8'.

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
				0.00 /0.90	5970	0				Top soil, start of boring at 0.90 ft.
				0.00 /1.10	5969	1				Gravelly Sand with some clay - moderate brown (5YR3/4), coarse- to fine-grained sand, average size gravel 1/4" diameter, sub-angular, low to medium plasticity, dominant lithology sand quartz with some rock fragments and trace dark minerals, mica and K-spar, abundant caliche throughout, no apparent bedding due to sample type, moist. 24% gravel, 62% sand, 2% silt, 12% clay. Top of bedrock at 2.0 ft.
				0.00 /2.00	5968	2				Sandy Claystone with some silt - dusky yellow (5Y6/4), fine- to very fine-grained sand, moderately sorted, sub-angular, approximately 10% porosity, argillaceous cement, slightly friable, dominant lithology sand clear quartz with some dark minerals and trace mica, iron nodules and K-spar, abundant caliche throughout and some limonite throughout, no apparent bedding or fractures due to sample type, moist, weathered. 31% sand, 20% silt, 49% clay.
				0.00 /2.00	5967	3				
				0.00 /2.00	5966	4				
				0.00 /2.00	5965	5				
				0.00 /2.00	5964	6			CLAYEY SANDSTONE	Clayey Sandstone with some silt - dusky yellow (5Y6/4), fine- to very fine-grained sand, well sorted, sub-rounded to rounded, approximately 20% porosity, agrillaceous cement, moderately friable, dominant lithology sand clear quartz with trace dark minerals and mica, some iron staining on grains, some limonite throughout, no apparent bedding or fractures due to sample type, moist, weathered, clay layers at 11.8-11.9' and 12.3-12.4', some caliche at 11.8-12.0', low angle bedding at 12.0-12.3', some banded limonite staining and trace manganese staining throughout, some carbonaceous material throughout. 62% sand, 9% silt, 29% clay
				0.00 /2.00	5963	7				
					5962	8				
				0.00 /3.80	5961	9				
						10				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 16.1	GROUND ELEVATION (FT):	5970.98	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 749428.77	AREA: MOUND	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	12291
EAST: 2085440.90	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	12/05/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 6.0 FT. - 3.0 FT. OFFSET TO WELL 01491.
CUTTING SAMPLES OBTAINED AT 0.9-11.8', 13.9-16.8'.

CHEMICAL SAMPLE / GRADATIONAL SA.	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	BH00138W012			2.10 /2.10	5960 5959 5958 5957 5956 5955 5954 5953 5952 5951	10 11 12 13 14 15 16 17 18 19 20	12/05/91		SANDSTONE:	Sandstone with some clay and interbedded clay layers - dusky yellow (5Y6/4) to medium dark gray (N5), fine- to very fine-grained sand, well sorted, sub-rounded to rounded, approximately 25% porosity, argillaceous and silica cement, highly friable, dominant lithology sand clear quartz with trace dark minerals, some limonite throughout, caliche clast at 13.2', clay layers at 12.9-13.0' and 13.2-13.3' with abundant limonite surrounding, low angle bedding throughout, 80 degree healed fracture with caliche at 13.2-13.3', moist, weathered. 86% sand, 2% silt, 12% clay
										VOA sample obtained from this interval.
				0.00 /2.20					SANDSTONE:	Sandstone with some clay and interbedded clay layers - dusky yellow (5Y6/4) to medium dark gray (N5) as described above, caliche clast at 13.9'.
										Total depth at 16.1 ft

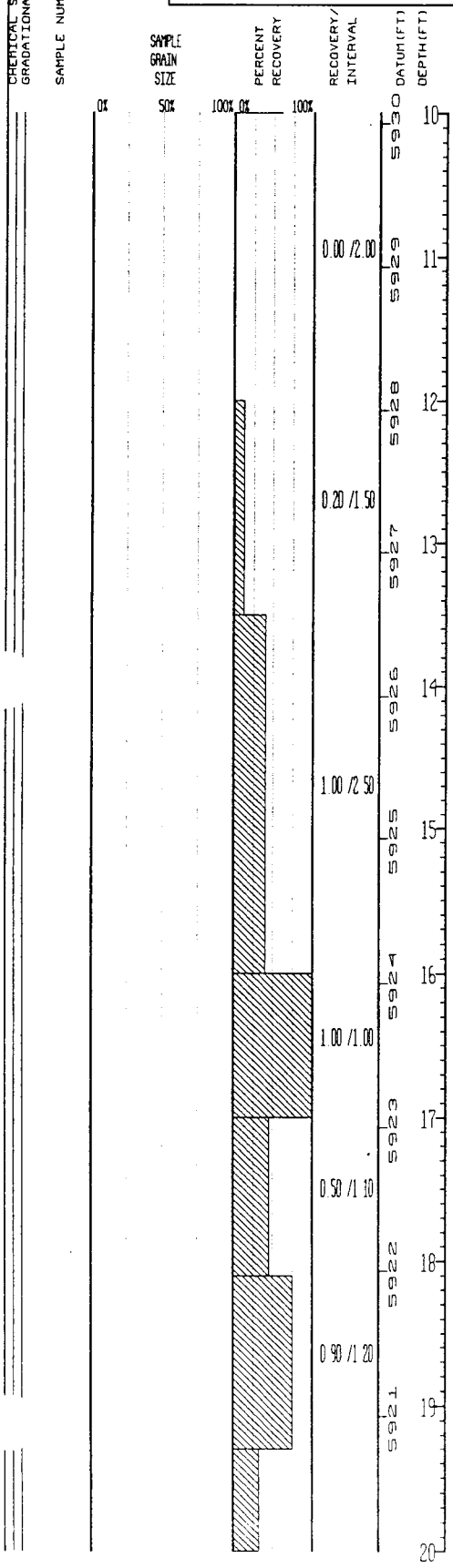
STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 76.0	GROUND ELEVATION (FT):	5940.07	PROJECT NUMBER:	002/RI	LOG OF BORING NUMBER:
NORTH:	750176.20	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	12391
EAST:	2088272.55	LOCATOR NUMBER: I15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	12/23/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 56.1 - 52.8 FT. BACKFILL MATERIAL: BENTONITE 76.0 - 70.4 FT

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%							Top soil, start of boring at 0.90 ft
				0.00 /0.90	5940	0			GW	Sandy Gravel - brownish black (5YR2/1), maximum gravel diameter .15', average .07', coarse- to fine-grained sand, well sorted, sub-angular to sub-rounded, low plasticity, gravel primarily quartzite, some coated with caliche, abundant calcrete clasts, dominant sand lithology quartz, some rock fragments and caliche, trace mica and feldspar, no apparent bedding, moist, some roots. 65% gravel, 32% sand, 2% silt, 1% clay.
				1.30 /1.30	5939	1				
					5938	2			SW	Gravelly Sand - very pale orange (10YR8/2), maximum gravel diameter > .25', average .15', coarse- to fine-grained sand, well graded, sub-angular to angular, low plasticity, gravel primarily quartzite with some weathered feldspar, some coated with caliche, iron stained, dominant sand lithology quartz and calcrete, some rock fragments, trace feldspar, no apparent bedding, dry. 41% gravel, 55% sand, .1% silt, 3% clay
				1.20 /1.80	5937	3				
					5936	4				No recovery for this interval.
				0.00 /2.00	5935	5				
					5934	6				
				0.00 /2.00	5933	7				
					5932	8			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), maximum gravel diameter > .25', coarse- to fine-grained sand, well graded, angular to sub-rounded, low plasticity, gravel primarily gray quartzite, dominant sand lithology quartz, some feldspar, dark minerals and iron staining on grains and clasts, clast of arkosic arenite at 9.0-9.2', no apparent bedding, dry. 63% gravel, .36% sand, 1% silt
				1.20 /2.00	5931	9				No recovery for this interval
						10				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 76.0	GROUND ELEVATION (FT):	5940.07	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 750176.20	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	12391
EAST: 2088272.55	LOCATOR NUMBER: I15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	12/23/91	

REMARKS: HOLLOW STEM AUGER BENTONITE SEAL 56.1 - 52.8 FT. BACKFILL MATERIAL: BENTONITE 76.0 - 70.4 FT.



WELL OR PIEZOMETER CONSTRUCTION

LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above
		No recovery for this interval
	GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above
		No recovery for this interval
	GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, increase in sand, decrease in clast size at 16.1-17.0', schist bearing gravel at 16.7-17.5'
		No recovery for this interval
	GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, increase in sand, decrease clast size at 18.1-19.0'
		No recovery for this interval
	GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above, translucent quartzite fragments at 19.3-19.6'

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 76.0	GROUND ELEVATION (FT):	5940.07	PROJECT NUMBER:	OU2/RI
NORTH: 750176.20	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST: 2088272.55	LOCATOR NUMBER: I15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	12/23/91

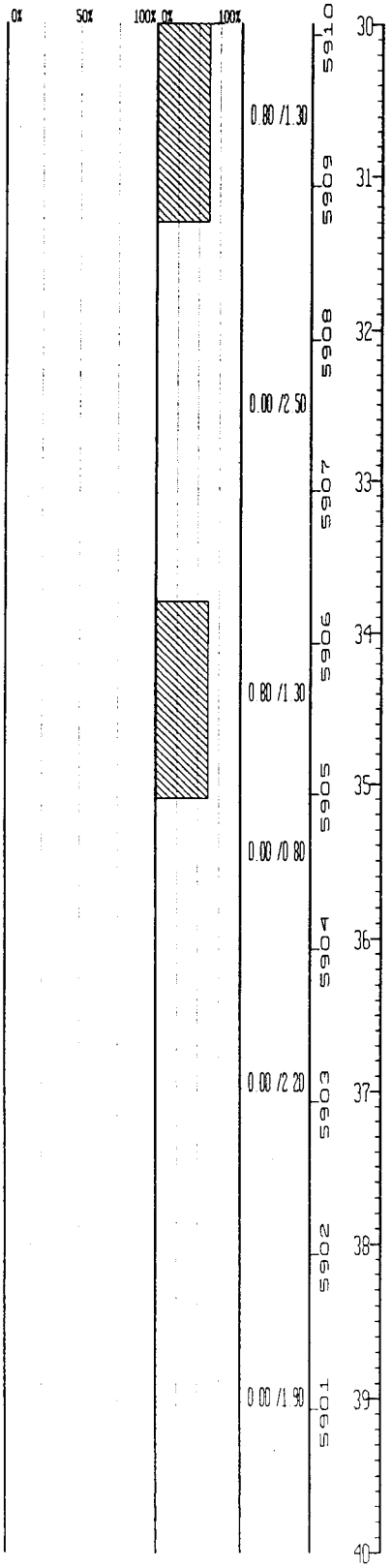
LOG OF BORING NUMBER: 12391

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 56.1 - 52.8 FT. BACKFILL MATERIAL: BENTONITE 76.0 - 70.4 FT.

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%		5920	20				No recovery for this interval
				0.90 /2.80	5919	21				
					5918	22			SW	Gravelly Sand - light brown (5YR6/4), maximum gravel diameter > 25', average .1', very coarse- to fine-grained sand, well graded, sub-angular to rounded, low plasticity, gravel primarily gray quartzite, some iron stained pearl quartzite, dominant sand lithology quartz, some rock fragments, iron staining, trace feldspar, dark minerals and mica, no apparent bedding, moist 48% gravel, 50% sand, 1.8% silt, 0.2% clay
				1.10 /1.90	5917	23				
										No recovery for this interval
					5916	24			SW	Gravelly Sand - light brown (5YR6/4), as described above
				0.80 /2.00	5915	25				No recovery for this interval
					5914	26			SM	Gravelly Sand with some silt - light brown (5YR6/4), as described below
	BH00141WC02									VOA sample obtained from this interval
	BH00140WC02								SM	Gravelly Sand with some silt - light brown (5YR6/4), as described below
				0.80 /2.10	5913	27				VOA sample obtained from this interval
									SM	Gravelly Sand with some silt - light brown (5YR6/4), as described below
										No recovery for this interval
					5912	28			SM	Gravelly Sand with some silt - light brown (5YR6/4), maximum gravel diameter > 25', coarse- to fine-grained sand, well graded, sub-angular to sub-rounded, low plasticity, gravel primarily gray quartzite, dominant sand lithology quartz, some rock fragments, trace feldspar and mica, no apparent bedding, wet, low angle bedding at 28.8-29.3', color change to light brown (5YR5/6) 28.9-29.4', granite clast at 29.3-29.5' 35% gravel, 55% sand, 6% silt, 4% clay
				1.50 /1.90	5911	29				
						30				No recovery for this interval

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 76.0	GROUND ELEVATION (FT):	5940.07	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 750176.20	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	12391
EAST: 2088272.55	LOCATOR NUMBER: I15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	12/23/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 56.1 - 52.8 FT. BACKFILL MATERIAL: BENTONITE 76.0 - 70.4 FT.

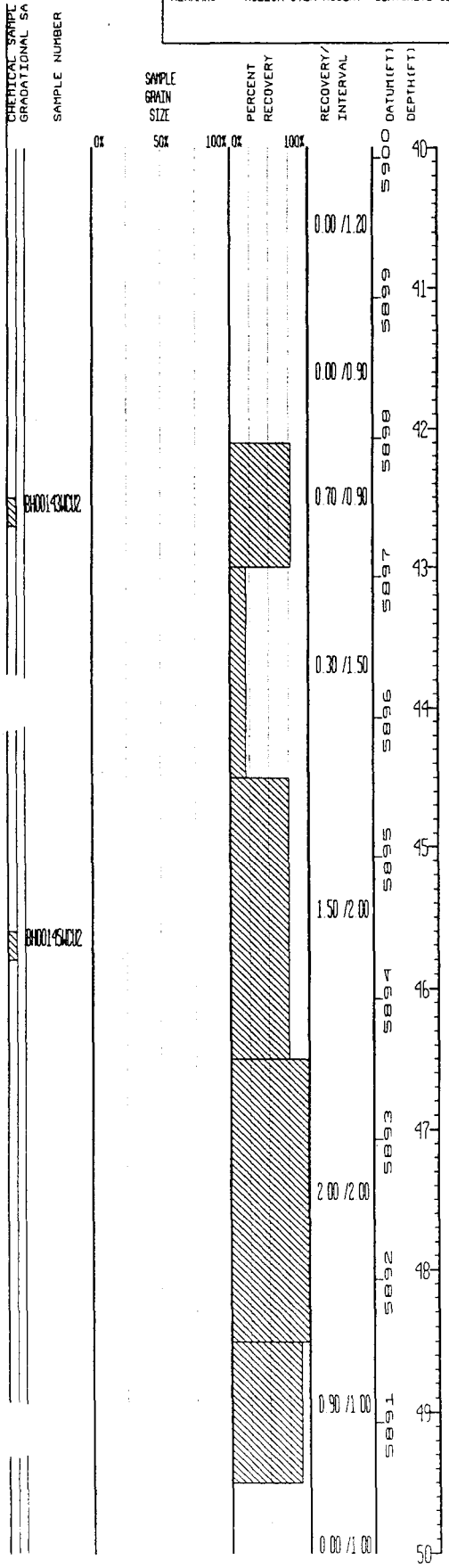


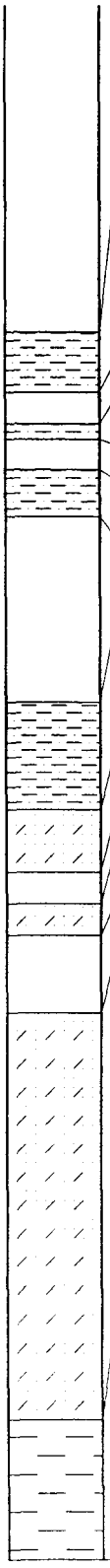
WELL OR PIEZOMETER CONSTRUCTION: 12/23/91

LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	SM:	Gravelly Sand with some silt - light brown (5YR6/4), as described above.
		No recovery for this interval.
	SM:	Gravelly Sand with some silt - light brown (5YR6/4), as described above.
		No recovery for this interval. Top of bedrock at 36.5 ft.
		No recovery for this interval.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 76.0	GROUND ELEVATION (FT):	5940.07	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER
NORTH:	750176.20	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	12391
EAST:	2088272.55	LOCATOR NUMBER: I15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	12/23/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 56.1 - 52.8 FT BACKFILL MATERIAL: BENTONITE 76.0 - 70.4 FT



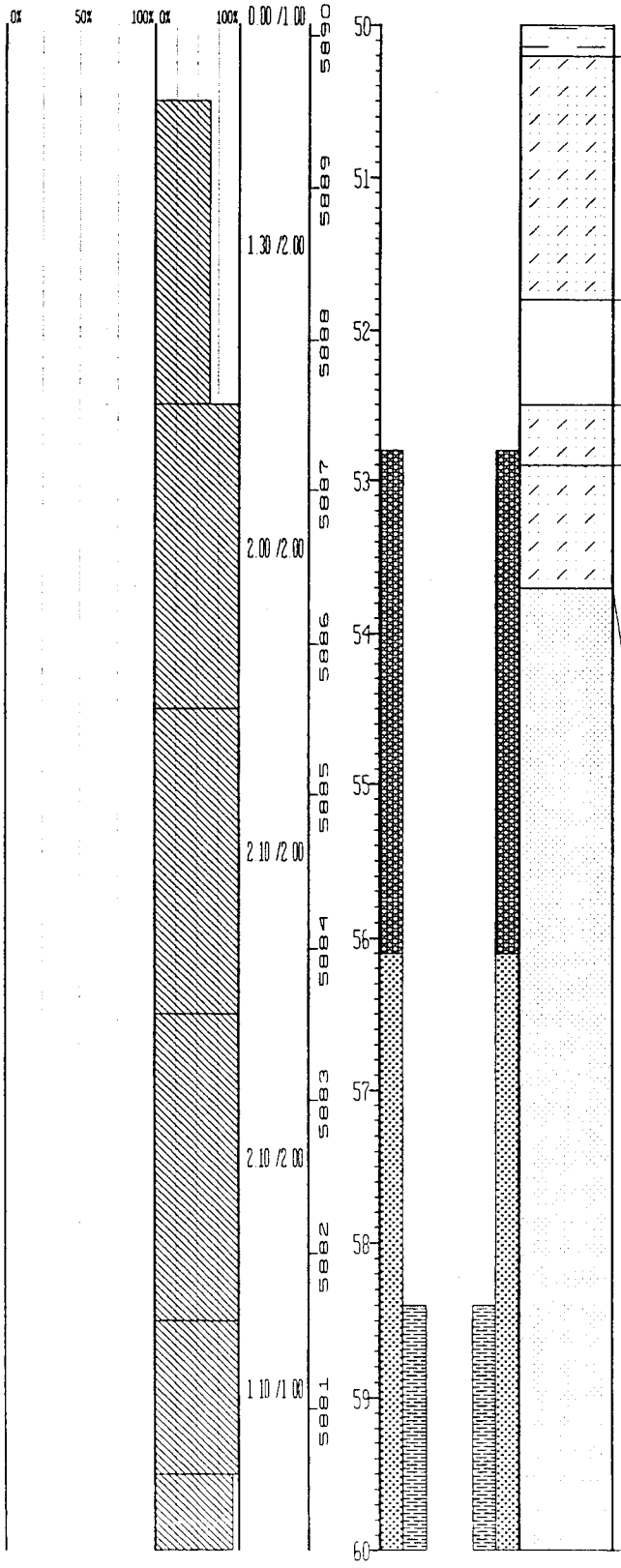


WELL OR PIEZOMETER CONSTRUCTION	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	SANDY CLAYSTONE	Sandy Claystone with some silt - grayish brown (5YR2/2), very fine- to fine-grained sand, well sorted, sub-angular to sub-rounded, less than 10% porosity, argillaceous cement, non- to slightly friable, dominant sand lithology quartz, trace rock fragments, feldspar, iron staining, horizontal to 3 degree interbedding and lamination, no apparent fractures, wet. 42% sand, 9% silt, 49% clay.
		VOA sample obtained from this interval
	SANDY CLAYSTONE	Sandy Claystone with some silt - grayish brown (5YR2/2), as described above.
		No recovery for this interval
	SANDY CLAYSTONE	Sandy Claystone with some silt - grayish brown (5YR2/2), as described above.
		No recovery for this interval
	SANDY CLAYSTONE	Sandy Claystone with some silt - grayish brown (5YR2/2), as described above, increase sand content and color change to pale olive (10Y6/2) at 44.0-44.8', color change to pale yellowish orange (10YR8/6) at 44.8-45.2'.
	SILTY SANDSTONE	Silty Sandstone with some clay - grayish orange (10YR7/4), as described below.
		VOA sample obtained from this interval
	SILTY SANDSTONE	Silty Sandstone with some clay - grayish orange (10YR7/4), as described below.
		No recovery for this interval
	SILTY SANDSTONE	Silty Sandstone with some clay - grayish orange (10YR7/4), very fine- to medium-grained sand, moderately sorted, sub-rounded, approximately 20% porosity, argillaceous cement, moderate friability, dominant sand lithology quartz, some feldspar and dark minerals, trace rock fragments and limonite stain, carbonaceous material, no apparent fractures, saturated, laminated at 46.8-49.1', trough cross laminations and convoluted lamination at 48.4-48.6', also some manganese oxide at 48.6', increased carbonaceous material at 48.0-49.1'. 72% sand, 21% silt, 7% clay.
	CLAYEY SANDSTONE	Clayey Sandstone with some silt - light gray (N7), fine- to medium-grained sand, moderately sorted, sub-angular to sub-rounded, approximately 10% porosity, argillaceous cement, slightly friable, dominant sand lithology quartz with trace dark minerals, feldspar, rock fragments, horizontal to 3 degree laminations, vertical contact between clay/sand laminea at 49.8-50.2', possible flame structure, load structures, convolute laminea, pseudonodules, iron nodule at 50.2', no apparent fractures, saturated. 58% sand, 8% silt, 34% clay.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 76.0	GROUND ELEVATION (FT):	5940.07	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER
NORTH:	750176.20	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	12391
EAST:	2088272.55	LOCATOR NUMBER: I15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	12/23/91	

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 56.1 - 52.8 FT. BACKFILL MATERIAL: BENTONITE 76.0 - 70.4 FT.

CHEMICAL SAMPLE
GRADATIONAL SA.
SAMPLE NUMBER
DEPTH



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
SILTY SANDSTONE	Silty Sandstone with some clay - grayish yellow (5Y8/4), fine- to medium-grained sand, moderate to well sorted, sub-rounded to rounded, approximately 15% porosity, argillaceous cement, moderately friable, dominant sand lithology quartz, some dark minerals, trace rose quartz, feldspar, limonite staining and carbonaceous material, iron nodules, faintly laminated, possible root (carbonaceous) at 50.45', saturated. 75% sand, 17% silt, 8% clay
	No recovery for this interval.
SILTY SANDSTONE	Silty Sandstone with some clay - grayish yellow (5Y8/4), as described above.
SILTY SANDSTONE	Silty Sandstone - yellowish gray (5Y7/2), fine- to medium-grained sand, well sorted, sub-rounded to rounded, approximately 20% porosity, argillaceous cement, highly friable, dominant lithology quartz, some dark minerals, feldspar, iron staining, trace frosted quartz, rose quartz, mica, rock fragments, faintly to interlaminated sand/clayey silt, carbonaceous matter along lamination planes, no apparent fractures, saturated, increase in clay content at 53.3-53.7', iron nodule at 53.5-53.7'. 72% sand, 24% silt, 4% clay
SANDSTONE	Sandstone with some silt - yellowish gray (5Y7/2), fine- to medium-grained sand, well sorted, sub-rounded to well-rounded, 20% porosity, argillaceous cement, highly friable, abundant quartz, some iron staining and dark minerals, trace feldspar, interlaminated sand/clayey silt at 54.5-56.5', iron staining along bedding/lamination planes at 56.5-57.1', increase in clay content and lamination at 57.1-57.5', convolute bedding and pseudonodules at 57.5-58.5', 60 degree caliche filled fracture at 57.7', soft sediment deformation, wavy bedding, dark reddish brown iron staining and carbonaceous material along lamination planes at 58.5-59.0', laminated silt/sand at 59.0-62.8', 2mm thick iron stained laminea on top of thin clay bed at 60.4-60.7', thinly bedded to thinly laminated sand, silt and silty clay, iron staining along and discordent to bedding at 62.8-64.0', no apparent fractures, saturated. 84% sand, 13% silt, 3% clay

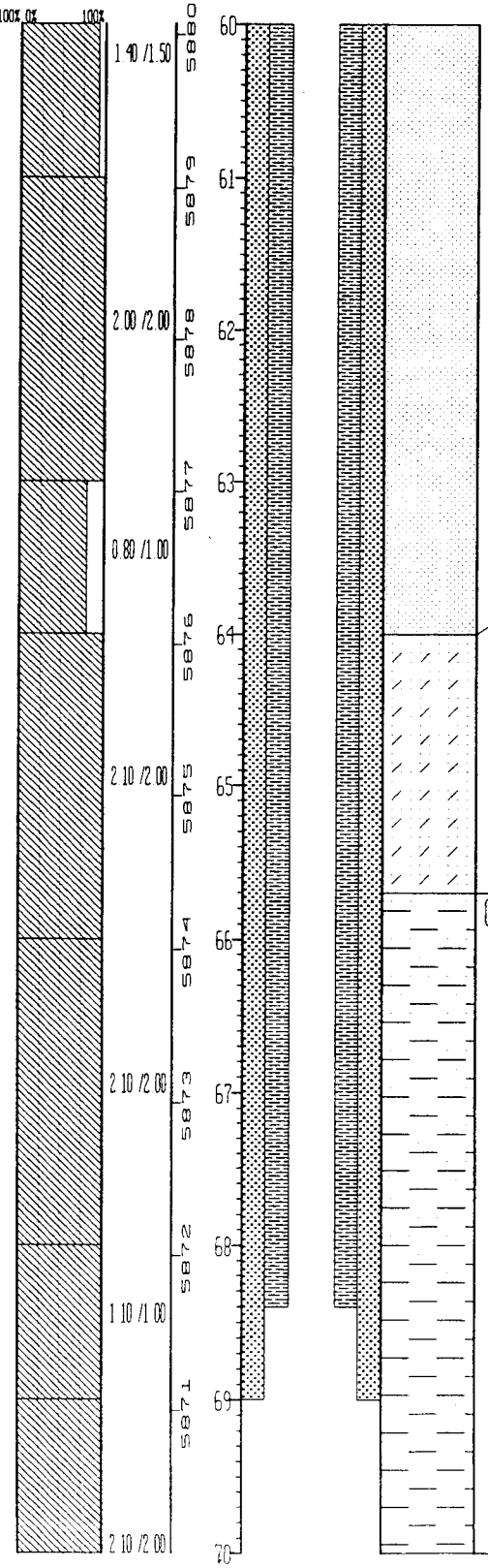
STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 76.0	GROUND ELEVATION (FT):	5940.07	PROJECT NUMBER:	OU2/RI
NORTH: 750176.20	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST: 2088272.55	LOCATOR NUMBER: I15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	12/23/91

REMARKS: HOLLOW STEM AUGER. BENTONITE SEAL 56.1 - 52.8 FT. BACKFILL MATERIAL: BENTONITE 76.0 - 70.4 FT.

LOG OF BORING NUMBER: 12391

CHEMICAL SAMPL
GRADATIONAL SA
SAMPLE NUMBER
DEPTH

SAMPLE GRAIN SIZE (0% 50% 100%) | PERCENT RECOVERY (0% 100%) | RECOVERY/INTERVAL | DATUM (FT) | DEPTH (FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION

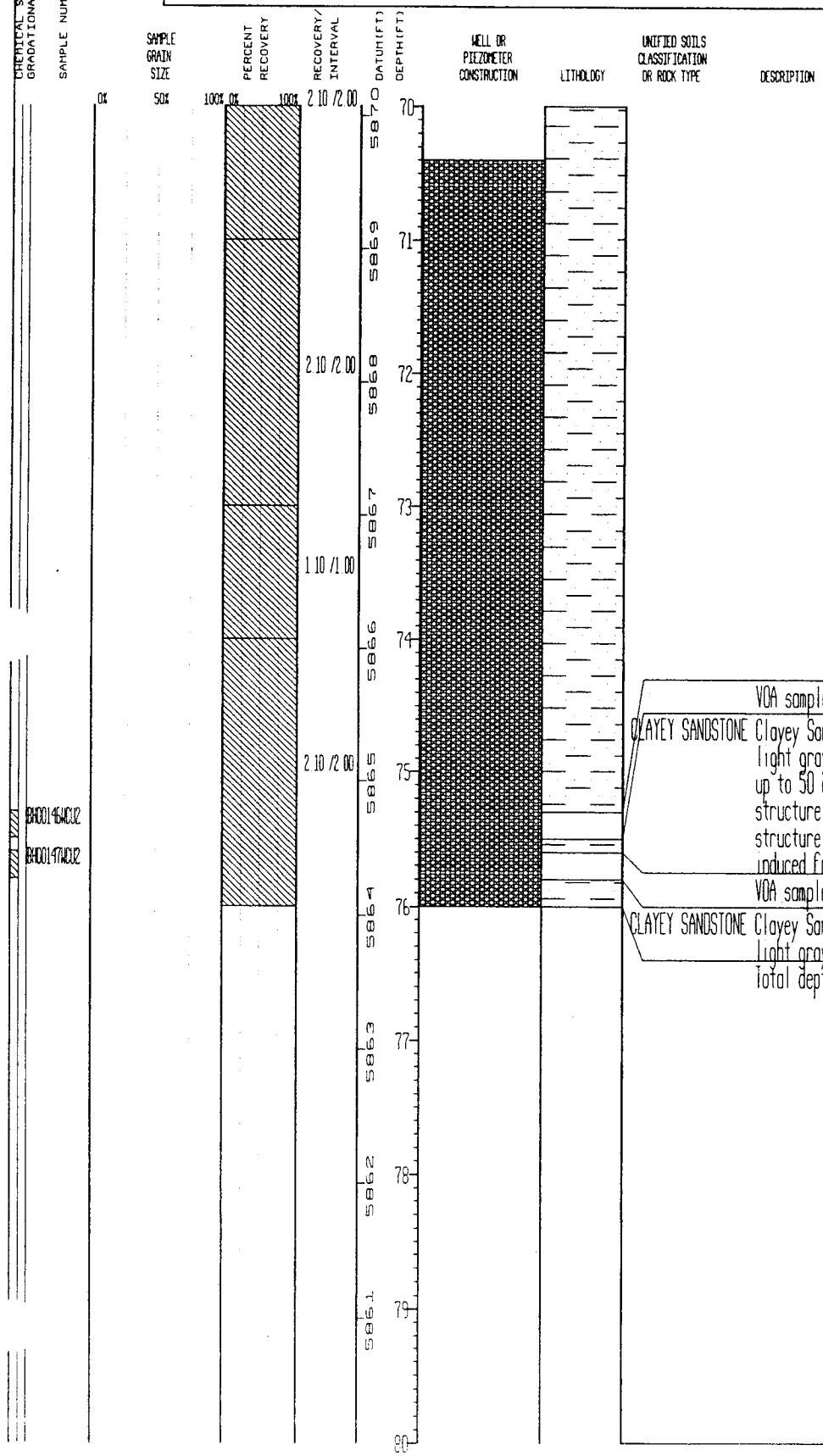


SILTY SANDSTONE: Silty Sandstone with some clay - dark yellowish orange (10YR6/6), clay is olive gray (5Y3/2), fine- to medium-grained sand, moderately sorted, sub-rounded, approximately 15% porosity, argillaceous cement, moderate friability, abundant quartz, some frosted quartz, dark minerals and iron staining, trace feldspar and mica, laminated sand/clayey silt, truncated lamined - possible ripple lamined 64.8, carbonaceous matter along bedding planes at 65.1-65.2', increased clay content at 65.5-65.6' and at 65.1-65.2', no apparent fractures, saturated
75% sand, 15% silt, 10% clay

CLAYEY SANDSTONE: Clayey Sandstone with some silt - light gray (N7) to medium light gray (N6), very fine- to medium-grained sand, well sorted, sub-rounded to sub-angular, approximately 5% porosity, argillaceous cement, slightly friable, sand is frosted quartz, some dark minerals, trace iron staining and carbonaceous material, thinly to thickly laminated sand/clayey sand, load structures & convolute lamined at 65.7-66.0', laminated carbon bearing clay/silty sand at 66.0-67.0', increase silt/sand content at 67.0-68.0', flame structure at 67.1', increased thin lamination at 68.0-69.0', soft sediment deformation slump detachment surface inclined at approximately 30 degrees, convolute bedding/lamination at 68.6-69.0', thinly laminated silty clay/sand at 69.0-72.0', thin to moderate laminations grading down to trough cross-laminated silts at 72.2', convolute bedding/lamined pseudonodules at 73.0-75.0'
50% sand, 12% silt, 38% clay

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 76.0		GROUND ELEVATION (FT):	5940.07	PROJECT NUMBER:	OU2/RI
NORTH:	750176.20	AREA: NE TRENCHES		CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST:	2088272.55	LOCATOR NUMBER:	I15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	12/23/91
REMARKS:	HOLLOW STEM AUGER BENTONITE SEAL 56.1 - 52.8 FT.			BACKFILL MATERIAL:	BENTONITE 76.0 - 70.4 FT.		

LOG OF BORING NUMBER: 12391



VOA sample obtained from this interval

CLAYEY SANDSTONE Clayey Sandstone with some silt - light gray (N7) to medium light gray (N6) as described above, disturbed laminea inclined up to 50 degrees convolute laminea, possible slump structure at 75.0-76.0', at 74.6' small scale soft sediment slump structure laminea offset .04', no apparent structurally induced fractures, dry

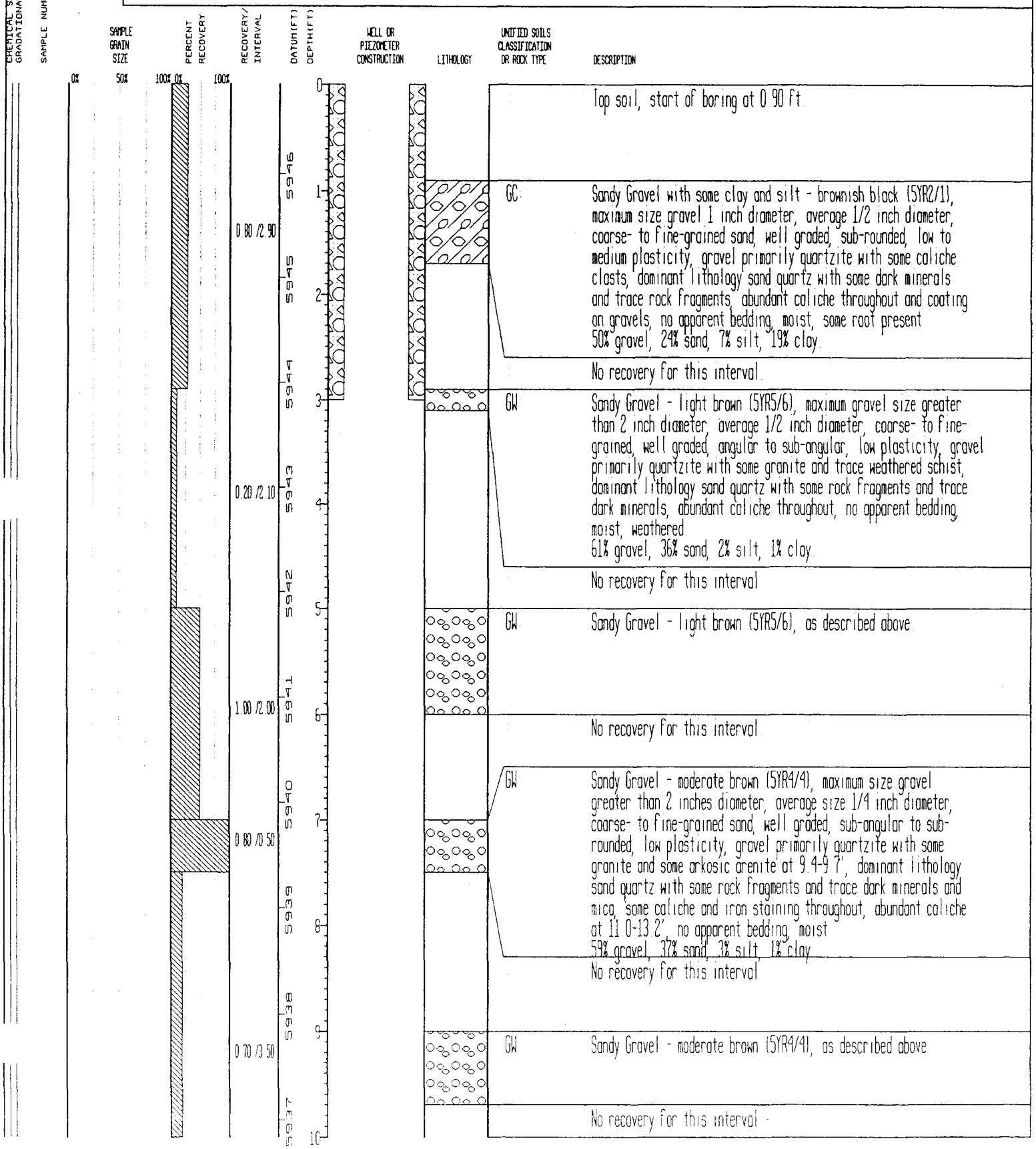
VOA sample obtained from this interval

CLAYEY SANDSTONE Clayey Sandstone with some silt - light gray (N7) to medium light gray (N6) as described above

Total depth at 76.0 ft

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 65.9	GROUND ELEVATION (FT):	5946.84	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	750058.25	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	LAG/JPOB	12491
EAST:	2087588.37	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	12/27/91	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 41.7 FT. - 37.6 FT. BACKFILL MATERIAL: BENTONITE 65.9 FT. - 60.0 FT.



STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 65.9	GROUND ELEVATION (FT):	5946.84	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	750058.25	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	LAG/JPOB	12491
EAST:	2087588.37	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	12/27/91	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 41.7 FT. - 37.6 FT. BACKFILL MATERIAL: BENTONITE 65.9 FT. - 60.0 FT.

CHEMICAL SAMPLE / GRADATIONAL SA.	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%			10				
					5936	11			GW	Sandy Gravel - moderate brown (5YR4/4), as described above.
				0.30 /2.00	5935	12				No recovery for this interval.
					5934	13			GW	Sandy Gravel - moderate brown (5YR4/4), as described above.
				2.00 /2.00	5933	14			SC	Clayey Sand with some silt - light brown (5YR5/6) with some pale olive (10Y6/2), mottling or marbling throughout, maximum size gravel 1 1/2 inch diameter, 1/4 inch diameter average, fine- to coarse-grained sand, well graded, low plasticity, sub-angular to sub-rounded, dominant lithology sand quartz with some rock fragments, feldspar and trace mica and dark minerals, gravel primarily quartzite with some quartz, some carbonaceous material throughout, some caliche at 13.2-13.5', no apparent bedding, moist, pale olive (10Y6/2) clay swirled into sand to give marbled texture throughout. 2% gravel, 79% sand, 8% silt, 11% clay.
				2.00 /2.00	5932	15				
					5931	16				
					5930	17				
				1.70 /2.00	5929	18				
					5928	19				No recovery for this interval.
				2.00 /2.00	5927	20			SC	Clayey Sand with some silt - light brown (5YR5/6), average size gravel 1/4" diameter, coarse- to fine-grained sand, well graded, angular to sub-rounded, low plasticity, dominant lithology sand quartz with some rock fragments and feldspar with trace mica and

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 65.9	GROUND ELEVATION (FT):	5946.84	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	750058.25	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	LAG/JPOB	12491
EAST:	2087588.37	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	12/27/91	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 41.7 FT. - 37.6 FT. BACKFILL MATERIAL: BENTONITE 65.9 FT. - 60.0 FT.

CHEMICAL SAMPLE	GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			0% 50%	100% 0% 100%	2.00/2.00		20				dark minerals, trace caliche clasts throughout and iron staining, some carbonaceous material throughout, no apparent bedding, moist. 1% gravel, 73% sand, 8% silt, 18% clay.
						5926	21				
					2.00/2.00	5925	22				
						5924	23				
					2.00/2.00	5923	24				
						5922	25				
					2.00/2.00	5921	26				
						5920	27			GW	Sandy Gravel - moderate yellowish brown (10YR5/4), maximum size gravel greater than 2 inches in diameter, coarse- to fine-grained sand, well graded, angular to sub-angular, low plasticity, gravel primarily quartzite, dominant lithology sand quartz with some rock fragments with trace mica, dark minerals and K-spar, trace iron staining throughout, trace carbonaceous material at 27.0-28.2', trace limonite at 29.0-30.0', no apparent bedding, moist at 27.0-29.0', saturated at 29.0-30.0'. 69% gravel, 27% sand, 3% silt, 1% clay.
					1.20/2.00	5919	28				No recovery for this interval.
						5918	29	12/27/91 ▽		GW	Sandy Gravel - moderate yellowish brown (10YR5/4), as described above
					0.70/1.00	5917	30				No recovery for this interval. Top of bedrock at 30.0 ft.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 65.9	GROUND ELEVATION (FT):	5946.84	PROJECT NUMBER:	OU2/RI
NORTH:	750058.25	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	LAG/JPOB
EAST:	2087588.37	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	12/27/91

LOG OF BORING NUMBER: 12491

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 41.7 FT. - 37.6 FT. BACKFILL MATERIAL: BENTONITE 65.9 FT. - 60.0 FT.

DEPTH	CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		BH00065WC02			1.10 /2.00	5916	30			CLAYEY SANDSTONE	Clayey Sandstone with some silt - dusky yellow (5Y6/4), as described below.
						5915	31				VOA sample obtained from this interval.
											No recovery for this interval.
					2.00 /2.00	5914	32			CLAYEY SANDSTONE	Clayey Sandstone with some silt - dusky yellow (5Y6/4), fine-grained sand, well sorted, sub-angular to sub-rounded, approximately 20% porosity, argillaceous cement, moderately friable, dominant lithology sand quartz with trace dark minerals, some limonite throughout, some clay clasts at 32.7-33.0', some carbonaceous material at 33.0-34.0', low angle bedding with thin laminations of clayey silt at 30.0-30.9', trace soft sediment deformation, convolute bedding with trace iron nodules at 33.8-34.0', no apparent fractures, saturated 75% sand, 9% silt, 16% clay
						5913	33				
					2.00 /2.00	5912	34			SANDY CLAYSTONE	Sandy Claystone with some silt - yellowish gray (5Y7/2), fine-grained sand, well sorted, sub-rounded, approximately 5% porosity, argillaceous cement, slightly friable, dominant lithology clear quartz with trace dark minerals and mica, some iron staining and trace carbonaceous material throughout, no preferred bedding orientation, no apparent fractures, saturated. 20% sand, 16% silt, 64% clay
						5911	35				
					2.00 /2.00	5910	36			CLAYEY SANDSTONE	Clayey Sandstone with some silt - dusky yellow (5Y6/4), fine- to very fine-grained sand, moderately sorted, sub-angular to sub-rounded, approximately 18% porosity, argillaceous cement, slightly to moderately friable, dominant lithology sand clear quartz with trace dark minerals, rose quartz, and mica, some iron staining on grains, some limonite and trace carbonaceous material throughout, laminations of silt and clay with soft sediment deformation (pseudonodules of silt) at 37.5-38.0', sand layer with thin laminations of clay with some convoluted bedding at 39.8-40.0', increase in clay at 40.0-40.5', thin laminations of clay and sand at 40.5-41.8', low angle bedding with very thin laminations of clay and sand controlling trace carbonaceous material at 41.8-43.0', no apparent fractures, saturated 72% sand, 8% silt, 20% clay
						5909	37				
					2.00 /2.00	5908	38				
						5907	39				
							40				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 65.9	GROUND ELEVATION (FT):	5946.84	PROJECT NUMBER:	OU2/RI
NORTH: 750058.25	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	LAG/JPOB
EAST: 2087588.37	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	12/27/91

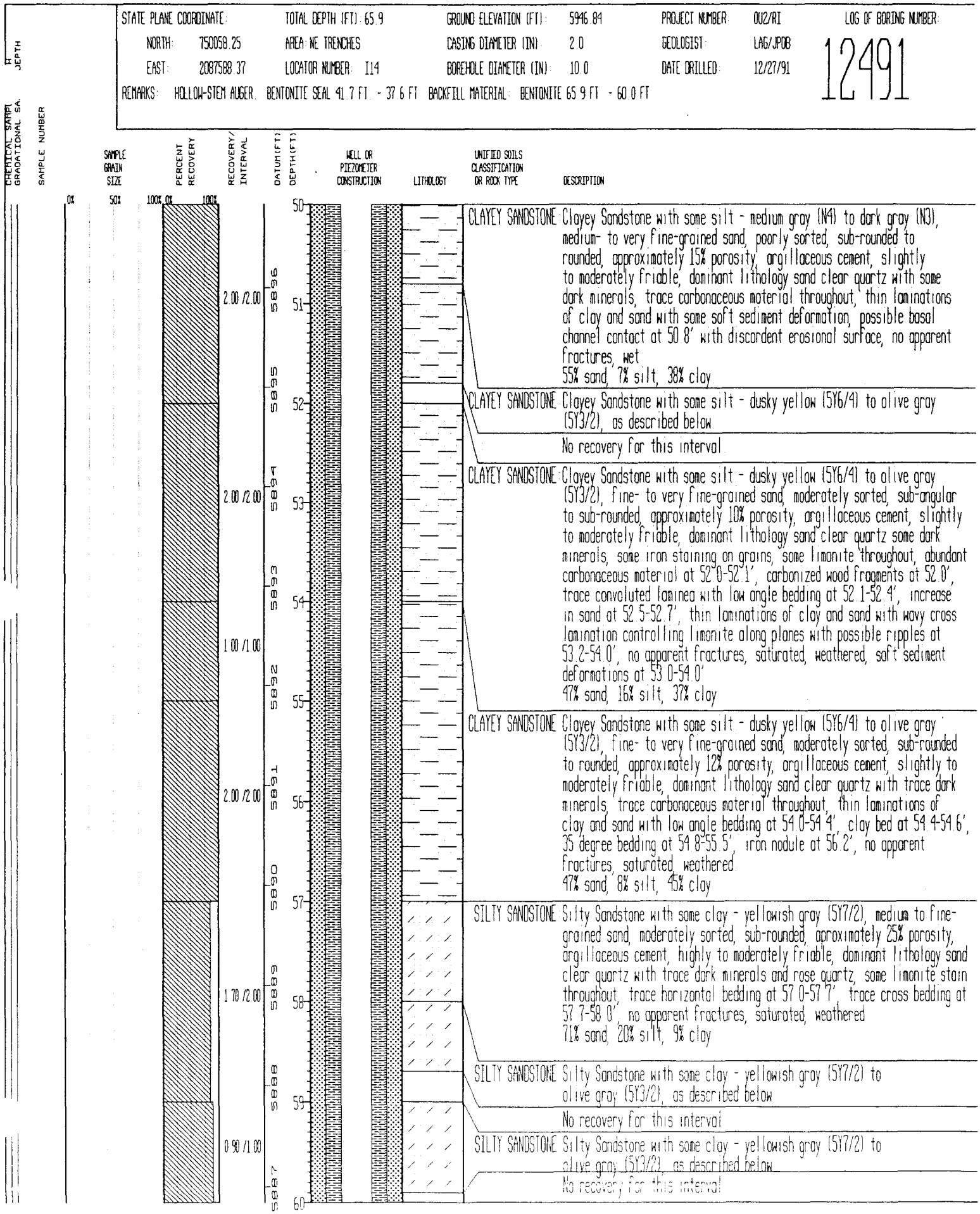
REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 41.7 FT. - 37.6 FT. BACKFILL MATERIAL: BENTONITE 65.9 FT. - 60.0 FT.

LOG OF BORING NUMBER: 12491

CHEMICAL SAMPL / GRADATIONAL S / DEPTH	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50%	100% 0% 100%	2.00 /2.00	5906	40				
					5905	41				
				2.00 /2.00	5904	42				
					5903	43			SANDSTONE	Sandstone with some silt - dusky yellow (5Y6/4), medium- to very fine-grained sand, poorly sorted, sub-rounded to rounded, approximately 25% porosity, silica with some argillaceous cement, moderately to highly friable, dominant lithology sand clear quartz with trace dark minerals, rose quartz and mica, some iron staining on grains, some limonite and trace carbonaceous material throughout, iron nodule at 45.4', abundant limonite at 46.3-46.5', 48.9-49.2', increase in sand with trace cross stratification at 43.0-44.0', some trough cross bedding at 44.4-44.6', thick laminations of clay and sand at 44.6-45.0' with some soft sediment deformation, cross laminations at 46.6', increased clay content - thickly laminated to thinly bedded silty clay at 46.6-47.0', trace horizontal bedding with very thin laminations at 48.0-48.2', very thin iron laminations at 48.7', very thin clay laminations at 48.7-48.9', no apparent fractures, saturated. 80% sand, 17% silt, 3% clay
				1.80 /2.00	5902	44				
					5901	45				
						46				No recovery for this interval
				1.60 /2.00	5900	47			SANDSTONE	Sandstone with some silt - dusky yellow (5Y6/4), as described above
					5899	48				No recovery for this interval
				1.50 /2.00	5898	49			SANDSTONE	Sandstone with some silt - dusky yellow (5Y6/4), as described above
					5897	50			CLAYEY SANDSTONE	Clayey Sandstone with some silt - medium gray (N4) to dark gray (N3), as described below
										No recovery for this interval

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 65.9	GROUND ELEVATION (FT): 5946.84	PROJECT NUMBER: 002/RI	LOG OF BORING NUMBER:
NORTH:	750058.25	AREA: NE TRENCHES	CASING DIAMETER (IN): 2.0	GEOLOGIST: LAG/JPDB	12491
EAST:	2087588.37	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 12/27/91	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 41.7 FT. - 37.6 FT BACKFILL MATERIAL: BENTONITE 65.9 FT - 60.0 FT



STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 65.9	GROUND ELEVATION (FT):	5946.84	PROJECT NUMBER:	OU2/RI
NORTH:	750058.25	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	LAG/JPOB
EAST:	2087588.37	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	12/27/91

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 41.7 FT. - 37.6 FT. BACKFILL MATERIAL: BENTONITE 65.9 FT. - 60.0 FT.

LOG OF BORING NUMBER: 12491

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%							
				2.00 /2.00	5886	60			SILTY SANDSTONE	Sitly Sandstone with some clay - yellowish gray (5Y7/2) to olive gray (5Y3/2), medium- to very fine-grained sand, moderately sorted, sub-angular to sub-rounded, approximately 15% porosity, argillaceous cement, slightly to moderately friable, sand contains abundant clear quartz, some dark minerals, trace limonite stain and iron nodules, thin laminations of clay and sand with some soft sediment deformations at 58.0-58.5', increased sand content at 58.5-59.2', interlaminated clay and sand with low angle bedding at 59.2-59.5', incresed sand content at 59.5-59.6', thin laminations of clay and sand with low angle bedding and soft sediment deformation at 59.6-60.5', increased clay content and wavy cross stratification at 60.3-60.7', possibble ripples with dropped bedding at 60.7-60.9', thinly interbedded silty clay and clay with low angle bedding and soft sediment deformation at 60.9-63.0', increased sand content at 62.0-62.2', 62.6-62.7', 50 degree apparent bedding with thin laminations of clay and sand at 62.2-63.0', possible slump feature, fracture plane of 50 degrees at 62.7-63.0', thin laminations of clay and silty clay with 15 degree bedding at 63.1-63.4', disturbed 30 degree bedding of thin beds of clay with soft sediment deformation at 63.7-64.0', laminations of sand with convolute bedding and load structures at 64.0-65.0', wet 56% sand, 29% silt, 15% clay
					5885	61				
						62				
				2.00 /2.00	5884	63				
					5883	64				
				1.00 /1.00	5882	65				VOA sample obtained from this interval
	BH00068WD2									Total depth at 65.0 ft
					5881	66				
					5880	67				
					5879	68				
					5878	69				
					5877	70				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 28.0	GROUND ELEVATION (FT):	5949.43	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER
NORTH: 749924.65	AREA: NE TRENCHES	CASING DIAMETER (IN):		GEOLOGIST:	L.A. GUST	12591
EAST: 2087447.77	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	12/30/91	
REMARKS: HOLLOW STEM AUGER. OFFSET TO 03191, ABANDONED.		BACKFILL MATERIAL: BENTONITE 28.0 FT. - 3.0 FT.				

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
				0.00 /0.90	5949	0				Top soil, start of boring at 0.90 ft.
				0.70 /2.10	5948, 5947	1, 2			GC:	Sandy Gravel with some clay and silt - blackish red (5R2/2), maximum size gravel 1" diameter, average 1/2" diameter, coarse- to fine-grained sand, sub-rounded gravel, sub-angular sand, well graded, low to medium plasticity, gravel primarily quartzite with some granite and quartz, dominant lithology sand quartz with some rock fragments and trace mica and dark minerals, some iron staining on grains, some caliche throughout, no apparent bedding, moist, some roots present. 57% gravel, 21% sand, 5% silt, 17% clay.
										No recovery for this interval.
				0.40 /2.00	5946, 5945	3, 4			GW:	Sandy Gravel - pale brown (5YR5/2), maximum size gravel 2" diameter, average size 1" diameter, coarse- to fine-grained sand, well graded, sub-angular, gravel primarily quartzite, dominant lithology quartz with some rock fragments and trace dark minerals, abundant caliche, no apparent bedding, moist. 63% gravel, 34% sand, 2% silt, 1% clay.
										No recovery for this interval.
				0.60 /2.00	5944, 5943	5, 6			GW:	Sandy Gravel - pale brown (5YR5/2), as described above.
										No recovery for this interval.
				0.60 /2.00	5942, 5941	7, 8			GW:	Sandy Gravel with some silt - light olive (10Y5/4), maximum size gravel 1 1/2" diameter, average 1/2" diameter, coarse- to fine-grained sand, well graded, sub-angular, low plasticity, gravel primarily quartzite, dominant lithology sand quartz with some rock fragments and dark minerals, some iron staining on grains, some caliche throughout, trace iron patches, no apparent bedding, moist, bedrock appearance. 61% gravel, 32% sand, 6% silt, 1% clay.
										No recovery for this interval.
				0.60 /1.00	5940	9, 10			GW:	Sandy Gravel with some silt - light olive (10Y5/4), as described above.
									GW:	Sandy Gravel - moderate brown (5YR4/4), maximum size gravel 2" diameter, average 3/4" diameter, coarse- to fine-grained

STATE PLANE COORDINATE		TOTAL DEPTH (FT): 28.0	GROUND ELEVATION (FT):	5949.43	PROJECT NUMBER:	OU2/RI
NORTH:	749924.65	AREA: NE TRENCHES	CASING DIAMETER (IN):		GEOLOGIST:	L.A. GUST
EAST:	2087447.77	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	12/30/91

REMARKS: HOLLOW STEM AUGER. OFFSET TO 03191, ABANDONED

BACKFILL MATERIAL: BENTONITE 28.0 FT. - 3.0 FT.

LOG OF BORING NUMBER: 12591

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%							sand, well graded, sub-rounded to sub-angular, low plasticity, gravel primarily quartzite with some granite, dominant lithology sand quartz with abundant rock fragments and trace dark minerals, mica and K-spar, trace iron staining on grains, some caliche throughout, trace carbonaceous material throughout, no apparent bedding, moist. 71% gravel, 26% sand, 2% silt, 1% clay
				0.60 /2.00	5939	10				
					5938	11				No recovery for this interval
					5937	12			GW	Sandy Gravel - moderate brown (5YR4/4), as described above.
				0.70 /2.00	5936	13				No recovery for this interval.
					5935	14			GW	Sandy Gravel - moderate brown (5YR4/4), as described above.
				0.60 /2.00	5934	15			GM	Sandy Gravel with some silt - moderate brown (5YR4/4), maximum size gravel 2" diameter, average 3/4" diameter, low plasticity, coarse- to fine-grained sand, well graded, sub-rounded, gravel primarily quartzite with some quartz, dominant lithology sand quartz with some rock fragments and trace dark minerals, some caliche throughout, no apparent bedding, moist. 53% gravel, 37% sand, 7.5% silt, 2.5% clay.
										No recovery for this interval
					5933	16			GM	Sandy Gravel with some silt - moderate brown (5YR4/4), as described above.
				1.00 /2.00	5932	17				No recovery for this interval
					5931	18			GM	Sandy Gravel with some silt - moderate brown (5YR4/4), as described above.
				1.00 /2.00	5930	19			SC	Clayey Sand - moderate brown (5YR4/4) to grayish olive (10Y4/2), medium- to fine-grained sand, average size gravel 1/4" diameter, sub-angular, medium plasticity, dominant lithology sand quartz with some dark minerals and mica, gravel primarily quartzite, no apparent bedding, moist. 4% gravel, 67% sand, 2% silt, 27% clay.
						20				No recovery for this interval

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 28.0	GROUND ELEVATION (FT): 5949.43	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:	
NORTH: 749924.65	AREA: NE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: L.A. GUST	12591	
EAST: 2087447.77	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 12/30/91		
REMARKS: HOLLOW STEM AUGER. OFFSET TO 03191, ABANDONED.		BACKFILL MATERIAL: BENTONITE 28.0 FT. - 3.0 FT.			

CHEMICAL SAMPLE / GRADATIONAL SA.	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	BH00070AC02	0% 50% 100%	0% 100%	2.00 /2.00 2.00 /2.00 2.00 /2.00 1.90 /2.00	5929 5928 5927 5926 5925 5924 5923 5922 5921 5920	20 21 22 23 24 25 26 27 28 29 30			SC: CLAYSTONE: SILTY CLAYSTONE: CLAYEY SANDSTONE:	Clayey Sand - moderate brown (5YR4/4) to grayish olive (10Y4/2), as described above, bedrock like appearance at 20.0-20.6' Top of bedrock at 20.6 ft Claystone with some silt - grayish olive (10Y4/2) with some dark yellowish orange (10YR6/6) mottling, very fine-grained sand, well sorted, sub-angular, argillaceous cement, approximately 5% porosity, non-friable, dominant lithology sand clear quartz, trace limonite and carbonaceous material throughout, no apparent bedding or fractures, moist, weathered. 3% sand, 10% silt, 87% clay VOA sample obtained from this interval. Silty Claystone with some sand - pale olive (10Y6/2), very fine-grained sand, well sorted, sub-angular, approximately 5% porosity, argillaceous cement, non- to slightly friable, dominant lithology sand clear quartz, trace limonite and carbonaceous material throughout, no apparent bedding or fractures, moist, weathered. 6% sand, 21% silt, 73% clay Clayey Sandstone with some silt - pale olive (10Y6/2), very fine-grained sand, well sorted, sub-angular to sub-rounded, argillaceous cement, approximately 15% porosity, moderately friable, dominant lithology sand clear quartz with some dark minerals and trace mica, some limonite and carbonaceous material throughout, abundant carbonaceous material at 26.6-28.0', trace wavy cross stratification at 24.0-24.8', clay layer at 24.8-25.2', horizontal bedding at 26.5-28.0', moist, no apparent fractures, weathered, increase to fine-grained sand at 27.4-28.0' 52% sand, 17% silt, 31% clay. No recovery for this interval Total depth at 28.0 ft

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 71.0	GROUND ELEVATION (FT):	5949.68	PROJECT NUMBER:	OU2/RI
NORTH:	749952.14	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST:	2087419.37	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	01/02/92

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 45.2 FT - 41.2 FT. BACKFILL MATERIAL: BENTONITE 71.0 FT - 65.1 FT.

LOG OF BORING NUMBER: 12691

DEPTH	CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			0% 50% 100%	0% 100%							Top soil, start of boring at 0.90 ft.
										GC	Sandy Gravel with some clay - blackish red (5R2/2), maximum gravel diameter 1", average 1/2", coarse- to fine-grained sand, well graded, sub-angular, low to medium plasticity, gravel primarily quartzite, dominant lithology sand quartz with some rock fragments, trace dark minerals, mica, some iron staining on grains, some caliche throughout, no apparent bedding, moist, some root present. 62% gravel, 22% sand, 4% silt, 12% clay
					0.50 /3.00	5949 5948	0 1 2				No recovery for this interval
						5947	3			GW	Sandy Gravel - pale brown (5YR5/2), maximum gravel diameter > 2", average 1", coarse- to fine-grained sand, well graded, angular to sub-angular, low plasticity, dominant lithology gravel quartzite, dominant lithology sand quartz with abundant rock fragments, some dark minerals, trace mica, K-spar, abundant caliche throughout, no apparent bedding, moist. 65% gravel, 30% sand, 3% silt, 2% clay
					0.80 /2.00	5946	4				No recovery for this interval
						5945	5				
					0.00 /2.00	5944	6				
						5943	7			GW	Sandy Gravel - pale brown (5YR5/2), as described above.
					0.90 /1.00	5942	8				No recovery for this interval
										GW	Sandy Gravel - pale brown (5YR5/2), as described above
					0.20 /2.00	5941	9				No recovery for this interval
						5940	10				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 71.0	GROUND ELEVATION (FT):	5949.68	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749952.14	AREA NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	12691
EAST:	2087419.37	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	01/02/92	

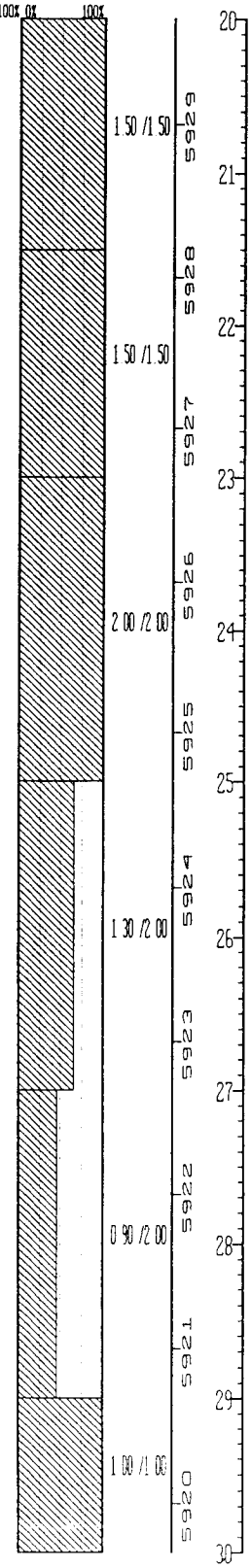
REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 45.2 FT. - 41.2 FT. BACKFILL MATERIAL: BENTONITE 71.0 FT. - 65.1 FT.

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%			10			GW	Sandy Gravel - pale brown (5YR5/2), as described above.
				0.20 /2.00	5939	11				No recovery for this interval.
					5938	12			GW	Sandy Gravel - moderate brown (5YR4/4), maximum gravel diameter > 2", average 1", coarse- to fine-grained sand, well graded, angular to sub-angular, low plasticity, gravel primarily quartzite with some granite, dominant lithology sand quartz with some rock fragments, trace dark minerals, mica, K-spar, pyrite, some caliche throughout, no apparent bedding, moist. 61% gravel, 35% sand, 3% silt, 1% clay
				0.80 /2.00	5937	13				No recovery for this interval.
					5936	14			GW	Sandy Gravel - moderate brown (5YR4/4), as described above.
				0.60 /2.00	5935	15				No recovery for this interval. Top of bedrock at 20.0 ft.
					5934	16				
				0.00 /2.00	5933	17				
					5932	18				
				0.00 /2.00	5931	19				
					5930	20				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 71.0	GROUND ELEVATION (FT):	5949.68	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749952.14	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	12691
EAST:	2087419.37	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	01/02/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 45.2 FT. - 41.2 FT. BACKFILL MATERIAL: BENTONITE 71.0 FT. - 65.1 FT.

DEPTH | CHEMICAL SAMPLE | GRADATIONAL SA. | SAMPLE NUMBER | SAMPLE GRAIN SIZE (0% 50% 100%) | PERCENT RECOVERY (100% 0% 100%) | RECOVERY/INTERVAL | DATUM (FT) | DEPTH (FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION



	CLAYSTONE	Claystone with some silt - olive gray (5Y4/1), very fine-grained sand, well sorted, sub-angular, approximately 5% porosity, non-friable, argillaceous cement, dominant lithology sand clear quartz with trace dark minerals, trace limonite and carbonaceous material throughout, some caliche inclusion and clast throughout, no apparent bedding or fractures, moist, slightly weathered. 2% sand, 9% silt, 89% clay.
		VOA sample obtained from this interval.
	CLAYSTONE	Claystone with some silt - olive grey (5Y4/1), as described above.
	SANDY SILTSTONE	Sandy Siltstone with some clay - pale olive (10Y6/2), very fine-grained sand, well sorted, sub-angular, approximately 20% porosity, argillaceous cement, slightly to moderately friable, dominant lithology sand clear quartz with some dark minerals and trace mica, some iron staining on grains, trace limonite and carbonaceous material throughout, no apparent bedding or fractures, moist, weathered. 22% sand, 70% silt, 8% clay.
		No recovery from this interval
	SANDY SILTSTONE	Sandy Siltstone with some clay - pale olive (10Y6/2), as described above, some horizontal bedding which controls some carbonaceous material at 27.5-27.9'
		No recovery for this interval
	SILTY SANDSTONE	Silty Sandstone - dusky yellow (5Y6/4), fine- to very fine-grained sand, moderately sorted, sub-angular to sub-rounded, approximately 25% porosity, argillaceous and silica cement, highly friable, dominant lithology sand clear quartz with trace dark minerals, some limonite,

STATE PLANE COORDINATE		TOTAL DEPTH (FT): 71.0	GROUND ELEVATION (FT): 5949.68	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:
NORTH:	749952.14	AREA: NE TRENCHES	CASING DIAMETER (IN): 2.0	GEOLOGIST: L.A. GUST	12691
EAST:	2087419.37	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 01/02/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 45.2 FT. - 41.2 FT. BACKFILL MATERIAL: BENTONITE 71.0 FT. - 65.1 FT.

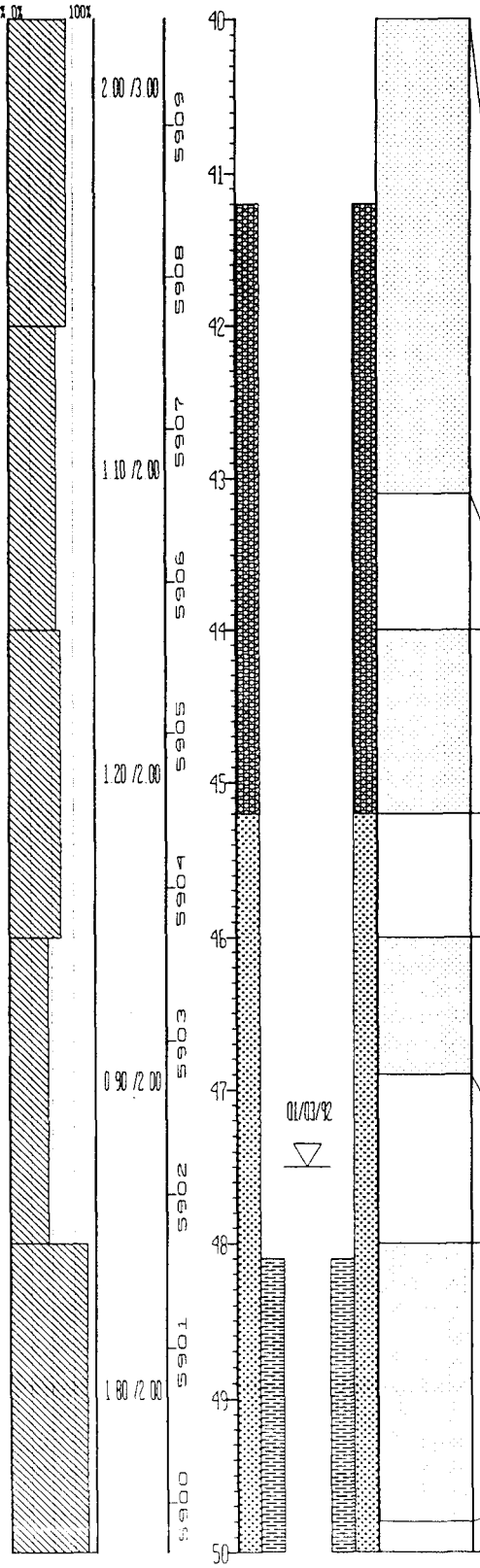
CHEMICAL SAMPLE / GRADATIONAL SA.	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
						30				trace carbonaceous throughout, trace clay clasts throughout, wavy cross stratification at 29.8-30.0', no apparent fractures, moist, weathered. 79% sand, 19% silt, 2% clay.
				2.00 /2.00	5919	31			SILTY SANDSTONE	Silty Sandstone with some clay - pale olive (10Y6/2), to dark yellowish orange (10YR6/6), fine- to very fine-grained sand, well sorted, sub-angular to sub-rounded, approximately 15% porosity, argillaceous cement, moderately friable, dominant lithology sand clear quartz with some dark minerals, trace iron nodules, some iron staining on grains, some banded limonite throughout, trace carbonaceous material, 10 degrees bedding at 30.4-30.6', wavy cross stratification at 30.6-31.8' with thin lamination of clay at 32.4-32.6', and 32.8-33.4', sand layers at 31.9-32.0', 32.6-32.8', and 33.4-33.6', no apparent fractures, moist. 51% sand, 37% silt, 12% clay.
					5918	32				
				1.60 /2.00	5917	33				
					5916	34				No recovery for this interval.
									SILTY SANDSTONE	Silty Sandstone with some clay - pale olive (10Y6/2) to dark yellowish orange (10YR6/6), as described above, trace horizontal bedding, wavy cross stratification at 34.3-34.6', saturated at 34.6'
	BH00074WC02			0.80 /1.00	5915					VOA sample obtained from this interval
						35				No recovery for this interval
				1.30 /2.00	5914	36			SANDSTONE	Sandstone with some silt - dusky yellow (5Y6/4), medium- to fine-grained sand, well sorted, sub-rounded to rounded, approximately 25% porosity, silica and argillaceous cement, highly friable, dominant lithology clear quartz with trace dark minerals, rose quartz, iron nodules and frosted quartz, some horizontal bedding and increase in competency at 35.7-36.9', no apparent fractures, saturated. 82% sand, 16% silt, 2% clay.
					5913	37				No recovery for this interval.
					5912				SANDSTONE	Sandstone with some silt - dusky yellow (5Y6/4), as described above
				0.00 /2.00		38				No recovery for this interval
					5911	39			SANDSTONE	Sandstone with some silt - dusky yellow (5Y6/4), as described above
					5910	40			CLAYEY SANDSTONE	Clayey Sandstone with some silt - dusky yellow (5Y6/4) to light olive gray (5Y5/2), fine- to very fine-grained sand, sub-rounded, approximately 16% porosity, argillaceous cement,

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 71.0	GROUND ELEVATION (FT):	5949.68	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749952.14	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	12691
EAST:	2087419.37	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	01/02/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 45.2 FT. - 41.2 FT. BACKFILL MATERIAL: BENTONITE 71.0 FT. - 65.1 FT.

CHEMICAL SAMPLE
GRADATIONAL SA.
SAMPLE NUMBER
DEPTH

SAMPLE GRAIN SIZE (0% – 50% – 100%) | PERCENT RECOVERY (0% – 100%) | RECOVERY/INTERVAL | DATUM (FT) | DEPTH (FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION



slightly to moderately friable, dominant lithology sand clear quartz with trace dark minerals, some iron staining on grains, some limonite controlled by bedding throughout, abundant limonite at 39.9-40.0', thin laminations of sand and clay with some wavy cross stratification and soft sediment deformation at 39.4-39.9', no apparent fractures, saturated.
63% sand, 16% silt, 21% clay

SANDSTONE: Sandstone with some silt - dusky yellow (5Y6/4) to pale olive (10Y6/2), coarse- to very fine-grained sand, moderately sorted, sub-rounded to rounded, approximately 25% porosity, silica with some argillaceous cement, highly friable, dominant lithology sand clear quartz with trace dark minerals, frosted quartz, K-spar, trace iron staining on grains, some limonite throughout which is controlled by bedding, low angle bedding at 40.2-42.0', very thin laminations of clay and sand with low angle bedding at 42.9-43.1' and 44.2-45.0', no apparent fractures, saturated
82% sand, 16% silt, 2% clay

No recovery for this interval

SANDSTONE: Sandstone with some silt - dusky yellow (5Y6/4) to pale olive (10Y6/2), as described above, abundant limonite at 45.0-45.2' with trace horizontal bedding.

No recovery for this interval.

SANDSTONE: Sandstone with some silt - dusky yellow (5Y6/4) to pale olive (10Y6/2), as described above, thin laminations of clay and sand with horizontal bedding and soft sediment deformation, trace cross stratification at 46.0-46.2', banded limonite with some low angle bedding at 46.2-46.7' with possible dewatering structure and trace wood fragments.

No recovery for this interval.

SANDSTONE: Sandstone with some silt - dusky yellow (5Y6/4) to pale olive (10Y6/2), as described above, thin laminations of clay with thick laminations of sand and banded limonite with low angle bedding at 48.4-48.6', with some hematite staining, some rip-up clay clast surrounded by limonite and trace wood fragments and hematite at 48.6-49.6', dewatering structure at 49.1'

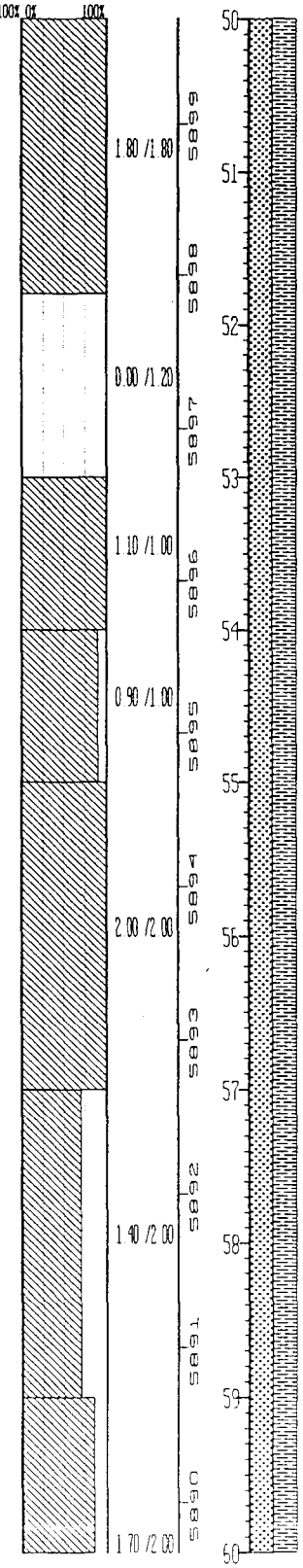
No recovery for this interval

STATE PLANE COORDINATE		TOTAL DEPTH (FT): 71.0	GROUND ELEVATION (FT): 5949.68	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:
NORTH:	749952.14	AREA: NE TRENCHES	CASING DIAMETER (IN): 2.0	GEOLOGIST: L.A. GUST	12691
EAST:	2087419.37	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 01/02/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 45.2 FT. - 41.2 FT. BACKFILL MATERIAL: BENTONITE 71.0 FT. - 65.1 FT.

CHEMICAL SAMPLE
GRADATIONAL SA
DEPTH
SAMPLE NUMBER

SAMPLE GRAIN SIZE (0% – 50% – 100%) | PERCENT RECOVERY (0% – 100%) | RECOVERY/INTERVAL | DATUM (FT) | DEPTH (FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
SANDSTONE	Sandstone with some silt - dusky yellow (5Y6/4) to pale olive (10Y6/2), as described above, decrease in competency at 50.0-51.0', trace clay clast and low angle bedding at 50.5-50.6', very thin laminations of clay with some bonded limonite, trace cross stratification, horizontal to low angle bedding at 51.0-51.6', with trace hematite along bedding planes, some soft sediment deformation.
	No recovery for this interval.
SANDSTONE	Sandstone with some silt - dusky yellow (5Y6/4) to pale olive (10Y6/2), as described above, decrease in competency at 53.0-56.1', grain size mainly coarse-grained with some dark minerals.
	No recovery for this interval.
SANDSTONE	Sandstone with some silt - dusky yellow (5Y6/4) to pale olive (10Y6/2), as described above.
SANDY CLAYSTONE	Sandy Claystone - dark gray (N5) to pale olive (10Y6/2) with some dark yellowish orange (10YR6/6), coarse- to very fine-grained sand, moderately sorted, sub-angular to rounded, approximately 10-20% porosity, argillaceous cement, non- to highly friable, dominant lithology sand clear quartz with some dark minerals, abundant limonite along sand layers, thin laminations of sand, silt, and clay with low angle bedding, soft sediment deformation, trace cross stratifications, no apparent bedding, saturated to moist. 27% sand, 9% silt, 64% clay
SANDSTONE	Sandstone with some silt and interbedded clay layers - dark yellow (5Y6/4) to dark grey (N3), coarse- to very fine-grained sand, moderately sorted, sub-rounded to rounded, approximately 25% porosity, argillaceous and silica cement, highly friable, dominant lithology sand clear quartz with some dark minerals, some limonite throughout, thin laminations of sand and clay with low angle bedding, trace cross stratifiaction at 57.2-58.0', abundant limonite with 10 degrees bedding, large cross bedding at 58.0-58.4', saturated. 83% sand, 10% silt, 7% clay
	No recovery for this interval.
SANDSTONE	Sandstone with some silt and interbedded clay layers - dark yellow (5Y6/4) to dark gray (N3), as described above, thick clay laminations with wavy cross stratification and low angle bedding at 59.1-59.4', very thin clay laminations with horizontal bedding at 59.5-60.2', low angle bedding at 60.4-60.5' with trace carbonaceous material, 10 degrees bedding with some carbonaceous

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 71.0	GROUND ELEVATION (FT):	5949.68	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749952.14	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST	12691
EAST:	2087419.37	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	01/02/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 45.2 FT. - 41.2 FT. BACKFILL MATERIAL: BENTONITE 71.0 FT. - 65.1 FT.

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%	1.70 /2.00		60				material controlled by bedding at 60.5-60.7', vertical fracture healed with clay at 60.3-60.6'.
										No recovery for this interval.
					5889	61			SANDSTONE	Sandstone with some silt and interbedded clay layers - dusky yellow (5Y6/4) to dark gray (N3), as described above, increase in clay content at 61.0-62.1'.
				2.00 /2.00	5888	62			CLAYSTONE	Claystone with some sand and silt - dark gray (N3), very fine-grained sand, well sorted, sub-angular, approximately 5% porosity, argillaceous cement, non- to slightly friable, dominant lithology sand clear quartz with some dark minerals low angle bedding, some soft sediment deformation, trace cross stratification throughout, no apparent fractures, moist, unweathered. 11% sand, 5% silt, 84% clay
					5887	63			SANDSTONE	Sandstone with some silt and interbedded clay layers - dusky yellow (5Y6/4) to dark gray (N3), medium- to very fine-grained sand, moderately sorted, sub-rounded to rounded, approximately 25% porosity, silica with some argillaceous cement, highly friable, dominant lithology sand clear quartz with some dark minerals, trace iron staining on grains, 15 degrees bedding with some cross stratification, very thin clay laminations, 45 degrees healed fractures with iron at 62.4-62.6', very thin clay laminations with low angle bedding at 63.0-63.4', very thin clay and sand laminations with low angle bedding, possible dewatering structure at 63.6-63.7', thin laminations of clay and sand with some wavy cross stratification, soft sediment deformation at 63.7-63.9', saturated, weathered. 86% sand, 9% silt, 5% clay
				2.00 /2.00	5886	64				
					5885	65				
				2.00 /2.00	5884	66			CLAYEY SANDSTONE	Clayey Sandstone with some silt - medium dark gray (N4), fine- to very fine-grained sand, well sorted, sub-angular to sub-rounded, approximately 18% porosity, argillaceous cement, moderately friable, dominant lithology sand clear quartz with some dark minerals, trace iron nodules, trace iron staining on grains, trace carbonaceous material throughout, trace limonite, thin sand and clay laminations with low angle bedding, soft sediment deformation at 64.0-65.7', 30 degrees healed fracture with iron at 65.3', load structure at 65.5-65.7', saturated to moist, slightly weathered. 48% sand, 10% silt, 42% clay
	BH0007SA012				5883	67				
				2.00 /2.00	5882	68			CLAYSTONE	Claystone with some silt and sand - medium gray (N5) to dark gray (N3), as described below.
										VOA sample obtained from this interval.
					5881	69			CLAYSTONE	Claystone with some silt and sand - medium gray (N5) to dark gray (N3), fine- to very fine-grained sand, well sorted, sub-angular to sub-rounded, approximately 5% porosity, argillaceous cement, non- to slightly friable, dominant lithology sand clear and frosted quartz with some dark minerals, trace mica, K-spar, trace carbonaceous material throughout, some load clast, convolute bedding, flame structures at 69.7-69.7', increase in clay content at 69.8-69.8', large flame structure at 69.9-70.1', trace
				2.00 /2.00	5880	70				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 71.0	GROUND ELEVATION (FT):	5949.68	PROJECT NUMBER:	OU2/RI
NORTH:	749952.14	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	L.A. GUST
EAST:	2087419.37	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	01/02/92

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 45.2 FT. - 41.2 FT. BACKFILL MATERIAL: BENTONITE 71.0 FT. - 65.1 FT.

LOG OF BORING NUMBER: 12691

CHEMICAL SAMPLE / GRADATIONAL SA	DEPTH	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			0% 50% 100%	0% 100%	2.00 /2.00	5879	70				sedimentary rock fragments at 70.8-71.0', no apparent fractures, wet to moist. 5% sand, 15% silt, 80% clay.
							71				Total depth at 71.0 ft.
						5878	72				
						5877	73				
						5876	74				
						5875	75				
						5874	76				
						5873	77				
						5872	78				
						5871	79				
						5870	80				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 10.0	GROUND ELEVATION (FT):	5953.25	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 748753.19	AREA: 903 LIP AREA	CASING DIAMETER (IN):		GEOLOGIST:	J.P. O'BRIEN	12791
EAST: 2086009.83	LOCATOR NUMBER: 613	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	02/27/92	

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 10.0 FT - 3.0 FT.

* = GRAIN SIZE DISTRIBUTION AND DESCRIPTIONS ESTIMATED.

DEPTH	CHEMICAL SAMPL / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			0% 50% 100%	0% 100%							Top soil, start of boring at 0.90 ft.
					0.70 /2.00	5953 5952	0 1			GC:	Sandy Gravel with some clay and silt * - pale brown (5YR5/2), maximum gravel diameter .22', average .15', fine- to coarse-grained sand, well graded, sub-angular to sub-rounded, moderate plasticity, gravel is primarily quartzite, sand contains abundant carbonaceous/organic material, quartz, some rock fragments, moist. *55% gravel, 20% sand, 5% silt, 20% clay.
										GC:	Clayey Gravel with some sand and silt - light brown (5YR5/6), as described below.
							2				No recovery for this interval.
		BH01237UC02			1.00 /2.00	5951 5950	3			GC:	Clayey Gravel with some sand and silt - light brown (5YR5/6), maximum gravel diameter .2', average .07', fine- to coarse-grained sand, well graded, angular to sub-rounded, moderate plasticity, gravel is primarily quartzite, with trace granite and pegmatite, sand contains abundant quartz, some rock fragments, feldspar, kaolinized feldspar, dark minerals, trace mica, > .25' rounded quartzite cobble pushed down into bedrock from this interval, moist. 46% gravel, 16% sand, 16% silt, 22% clay. Top of bedrock at 4.0 ft.
						5949	4				VOA sample obtained from this interval.
											No recovery for this interval.
		BH01238UC02			1.40 /2.00	5948	5			CLAYSTONE:	Claystone with some silt - grayish orange (10YR7/4) to medium gray (N5), as described below.
											No recovery for this interval.
						5947	6			CLAYSTONE	Claystone with some silt - grayish orange (10YR7/4) to medium gray (N5), dark yellowish orange (10YR6/6) where iron stained at 4.0-4.5', 5.0', very fine-grained, very well sorted, rounded, approximately 3% porosity, argillaceous cement, slightly friable, abundant frosted quartz, dark minerals, mottled, secondary solution fractures with dendritic pattern "weathered" to 8.4', some carbonaceous material - petroleum product at 8.1-8.4', faintly thinly bedded at 9.0-10.0', large cobble pushed from above while drilling at 4.5', moist. 3% sand, 10% silt, 87% clay.
					2.00 /2.20	5946	7				
		BH01239UC02									
						5945	8				VOA sample obtained from this interval.
										CLAYSTONE	Claystone with some silt - grayish orange (10YR7/4) to medium gray (N5), as described above.
		1240UC02			1.80 /1.80	5944	9				
											No recovery for this interval.
							10				Total depth at 10.0 ft.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 40.6	GROUND ELEVATION (FT):	5946.76	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749695.62	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	12891
EAST:	2088031.62	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/03/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 23.5 FT. - 20.5 FT. BACKFILL MATERIAL: BENTONITE 40.6 FT. - 37.5 FT.
OFFSET TO 08191 DIVISIONS BASED ON CORE FROM 08191, EXCEPT AT 37.0-39.0', WHERE A DRIVE SAMPLE WAS TAKEN.

CHEMICAL SAMPL / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					5946	0				Top soil, start of boring at 0.90 ft.
					5945	1			GM	Sandy Gravel with some silt and clay.
					5944	2			SC	Gravelly Sand with some clay.
				0.00 /6.00		3				
					5943	4				
					5942	5				
					5941	6				
				0.00 /2.00	5940	7				
					5939	8				
				0.00 /2.00	5938	9				
					5937	10				

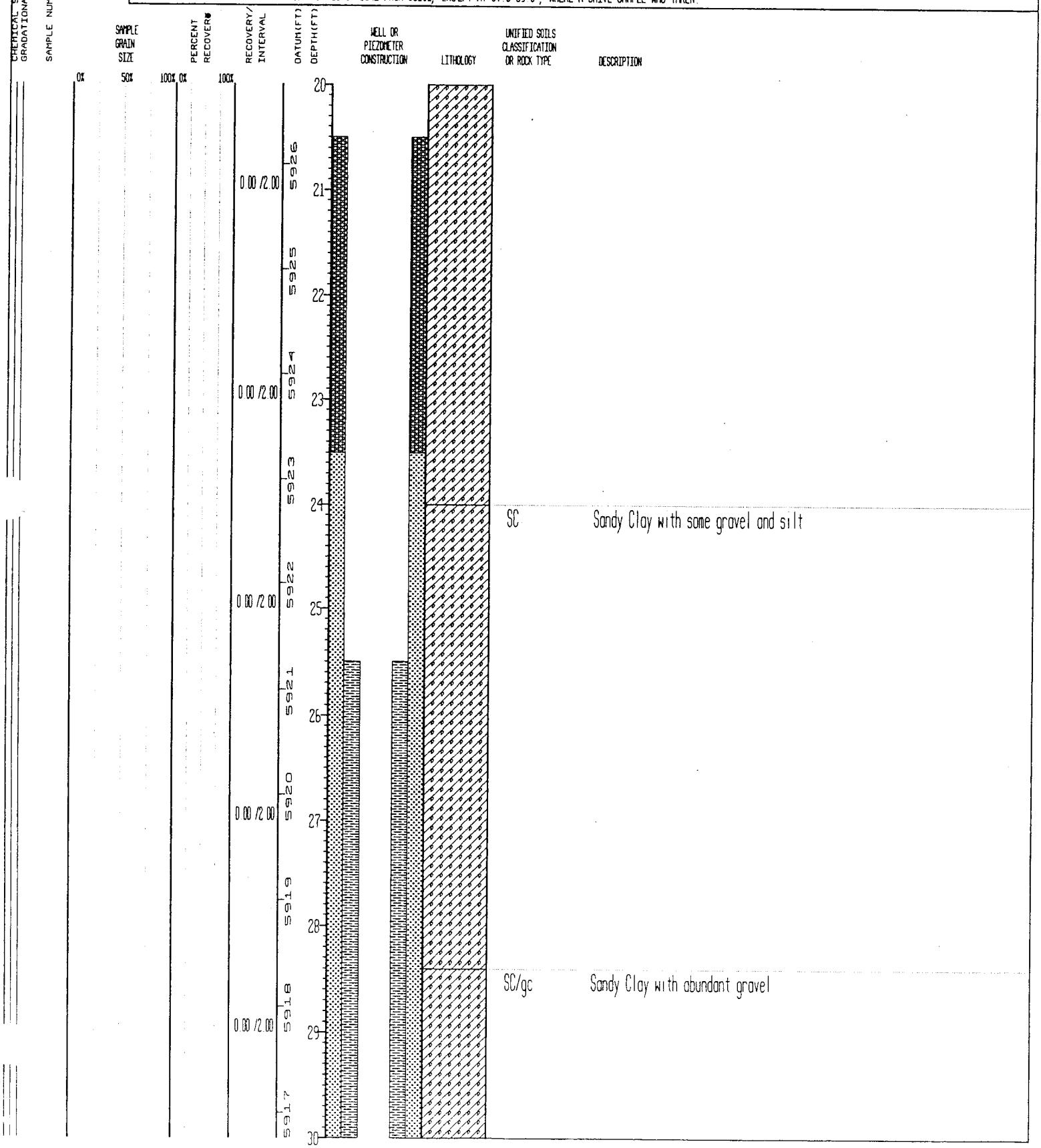
STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 40.6	GROUND ELEVATION (FT):	5946.76	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 749695.62	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	12891
EAST: 2088031.62	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/03/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 23.5 FT. - 20.5 FT. BACKFILL MATERIAL: BENTONITE 40.6 FT. - 37.5 FT.
OFFSET TO 08191 DIVISIONS BASED ON CORE FROM 08191, EXCEPT AT 37.0-39.0', WHERE A DRIVE SAMPLE WAS TAKEN

CHEMICAL SAMPL / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%			10				
				0.00 /2.00	5936	11			SC	Clayey Sand with some silt
					5935	12				
				0.00 /2.00	5934	13				
					5933	14				
				0.00 /2.00	5932	15				
					5931	16			SC	Gravelly Sand with some clay
				0.00 /2.00	5930	17				
					5929	18			SC	Clayey Sand with some gravel
				0.00 /2.00	5928	19				
					5927	20				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 40.6	GROUND ELEVATION (FT):	5946.76	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 749695.62	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	12891
EAST: 2088031.62	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/03/92	

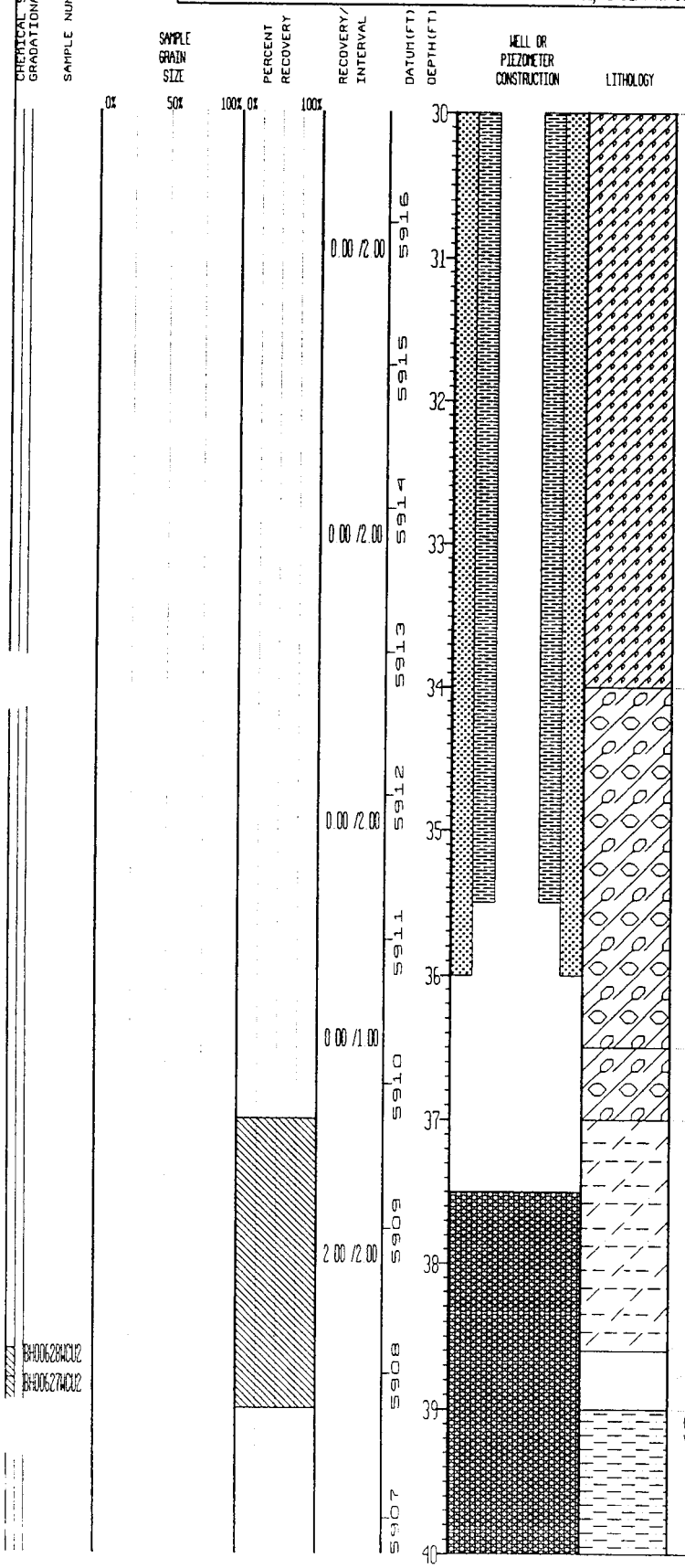
REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 23.5 FT. - 20.5 FT. BACKFILL MATERIAL: BENTONITE 40.6 FT. - 37.5 FT.
OFFSET TO 08191 DIVISIONS BASED ON CORE FROM 08191, EXCEPT AT 37.0-39.0', WHERE A DRIVE SAMPLE WAS TAKEN.



STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 40.6	GROUND ELEVATION (FT):	5946.76	PROJECT NUMBER:	OU2/RI
NORTH: 749695.62	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST: 2088031.62	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/03/92

LOG OF BORING NUMBER: 12891

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 23.5 FT. - 20.5 FT. BACKFILL MATERIAL: BENTONITE 40.6 FT. - 37.5 FT.
OFFSET TO 08191 DIVISIONS BASED ON CORE FROM 08191, EXCEPT AT 37.0-39.0', WHERE A DRIVE SAMPLE WAS TAKEN.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
SC/gc	Sandy Clay with some gravel.
GC	Sandy Gravel with some clay and silt.
GC	Clayey Gravel with abundant sand and some silt. Top of bedrock at 37.0 ft.
SILTY CLAYSTONE	Silty Claystone - yellowish gray (5Y8/1), very fine- to fine-grained, well sorted, sub-rounded to well rounded, approximately 4% porosity, argillaceous cement, highly friable, abundant frosted quartz, some dark minerals, trace feldspar, kaolinized feldspar, rock fragments, mica, 70 degree iron stained fracture at 37.3-38.3', thin dark gray (N3) clay bed at 37.3', dry to moist. 5% sand, 15% silt, 80% clay
	VOA sample obtained from this interval
	VOA sample obtained from this interval
SANDY CLAYSTONE	Sandy Claystone with some silt

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 40.6	GROUND ELEVATION (FT):	5946.76	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749695.62	AREA: SE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	12891
EAST:	2088031.62	LOCATOR NUMBER: H15	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/03/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 23.5 FT. - 20.5 FT. BACKFILL MATERIAL: BENTONITE 40.6 FT. - 37.5 FT.
OFFSET TO 08191 DIVISIONS BASED ON CORE FROM 08191, EXCEPT AT 37.0-39.0', WHERE A DRIVE SAMPLE WAS TAKEN.

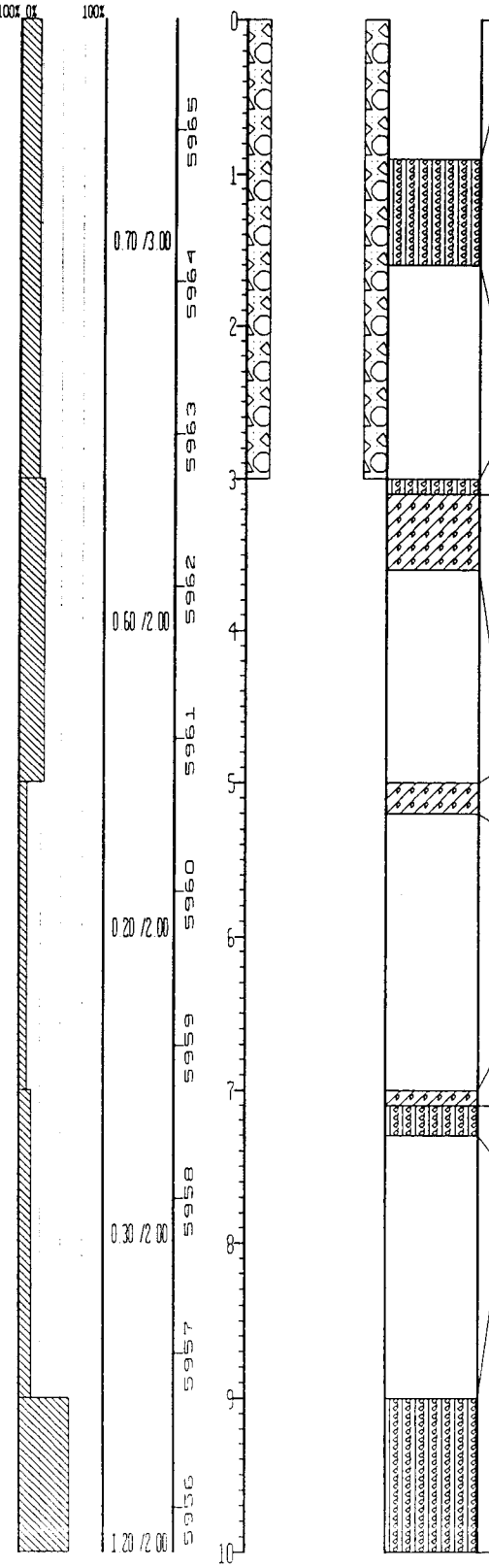
CHEMICAL SAMPL / GRADATIONAL SA.	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%		5906	40				
						41				Total depth at 40.6 ft.
					5905	42				
					5904	43				
					5903	44				
					5902	45				
					5901	46				
					5900	47				
					5899	48				
					5898	49				
					5897	50				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 37.0	GROUND ELEVATION (FT):	5965.71	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749208.51	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	12991
EAST:	2086624.56	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/11/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 18.6 FT. - 15.2 FT. BACKFILL MATERIAL: BENTONITE 37.0 FT.- 36.5 FT.

CHEMICAL SAMPLE
GRADATIONAL SA
DEPTH
SAMPLE NUMBER

SAMPLE GRAIN SIZE (0% – 50%) | PERCENT RECOVERY (100% 0% – 100%) | RECOVERY/INTERVAL | DATUM (FT) | DEPTH (FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION



Top soil, start of boring at 0.90 ft

SM Gravelly Sand with some silt and clay - dark reddish brown (10R3/4), maximum gravel diameter .14', average .07', fine- to coarse-grained sand, well graded, gravel is rounded, sand is angular to sub-rounded, low plasticity, gravel is primarily quartzite and calcrete, sand contains abundant carbonaceous/organic material, quartz, some calcrete, dark minerals, rock fragments, feldspar, trace mica, thin layer of pale olive (10Y6/2) man-made material (chemical product?) at 0.90', abundant calcrete nodules at 3.0-3.1', moist
27% gravel, 36% sand, 25% silt, 12% clay

No recovery for this interval

SM Gravelly Sand with some silt and clay - dark reddish brown (10R3/4), as described above

SC/gc Sandy Clay with abundant gravel and some silt - very pale orange (10YR8/2), maximum gravel diameter .17', average .12', fine- to coarse-grained sand, well graded, gravel is rounded, sand is sub-angular to sub-rounded, moderate plasticity, gravel is primarily caliche coated quartzite and calcrete, sand contains abundant calcrete/caliche, quartz, some iron staining, rock fragments, feldspar, trace mica (biotite), dry to moist
30% gravel, 31% sand, 10% silt, 34% clay

No recovery for this interval

SC/gc Sandy Clay with abundant gravel and some silt - very pale orange (10YR8/2), as described above

No recovery for this interval

SC/gc Sandy Clay with abundant gravel and some silt - very pale orange (10YR8/2), as described above

SM Gravelly Sand with some silt - light brown (5YR5/6), as described below

No recovery for this interval

SM Gravelly Sand with some silt - light brown (5YR5/6), maximum gravel diameter .19', average .1', very fine- to coarse-grained sand, well graded, gravel is sub-rounded, sand is angular to rounded, low plasticity, gravel is primarily quartzite with some fractured clasts of red feldspathoid at 9.0-9.2' and 9.7', sand contains abundant quartz, iron staining, some dark minerals, rock fragments, calcrete, dark blotches of product (petroleum) were observed (similar to those observed at 8.5' in 00291) at 9.2-9.7', moist
25% gravel, 62% sand, 10% silt, 3% clay

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 37.0	GROUND ELEVATION (FT):	5965.71	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749208.51	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	12991
EAST:	2086624.56	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/11/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 18.6 FT. - 15.2 FT. BACKFILL MATERIAL: BENTONITE 37.0 FT. - 36.5 FT.

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%	1.20/2.00	5955	10				No recovery for this interval.
						11			SM:	Gravelly Sand with some silt - light brown (5YR5/6), as described above.
				1.10/2.00	5954	12			GC:	Sandy Gravel with some clay and silt - moderate brown (5YR4/4), as described below.
										No recovery for this interval.
					5953	13			GC:	Sandy Gravel with some clay and silt - moderate brown (5YR4/4), maximum gravel diameter > 25', average 1', fine- to coarse-grained sand, well graded, gravel is rounded or fractured, sand is sub-rounded to rounded, low plasticity, gravel is primarily quartzite with some granite at 15.6', trace sandy clay (bedrock) clasts at 15.8-16.1', sand contains abundant quartz, some rock fragments, dark minerals, feldspar, trace iron and limonite stain, calcrete, mica, moist. 58% gravel, 28% sand, 7% silt, 8% clay.
				0.70/2.00	5952	14				No recovery for this interval.
					5951	15			GC	Sandy Gravel with some clay and silt - moderate brown (5YR4/4), as described above. Top of bedrock at 16.1 ft.
				1.10/2.00	5950	16				No recovery for this interval.
					5949	17			SANDY CLAYSTONE	Sandy Claystone with some silt - very pale orange (10YR8/2) to dark yellowish orange (10YR6/6) where iron stained, very fine- to fine-grained, well sorted, sub-rounded to rounded, approximately 7% porosity, argillaceous cement, slightly to moderately friable, sand contains abundant quartz, some dark minerals, thinly laminated to mottled throughout, carbonaceous material and iron staining along laminea, flame structure at 22.0', moist to wet. 17% sand, 9% silt, 74% clay.
				0.00/2.00	5948	18				
					5947	19				VOA sample obtained from this interval.
				0.40/2.00	5946	20			SANDY CLAYSTONE	Sandy Claystone with some silt - very pale orange (10YR8/2) to dark yellowish orange (10YR6/6) where iron stained, as described above.

3566HD02

STATE PLANE COORDINATE		TOTAL DEPTH (FT): 37.0	GROUND ELEVATION (FT): 5965.71	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:
NORTH:	749208.51	AREA: 903 PAD	CASING DIAMETER (IN): 2.0	GEOLOGIST: J.P. O'BRIEN	12991
EAST:	2086624.56	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 02/11/92	

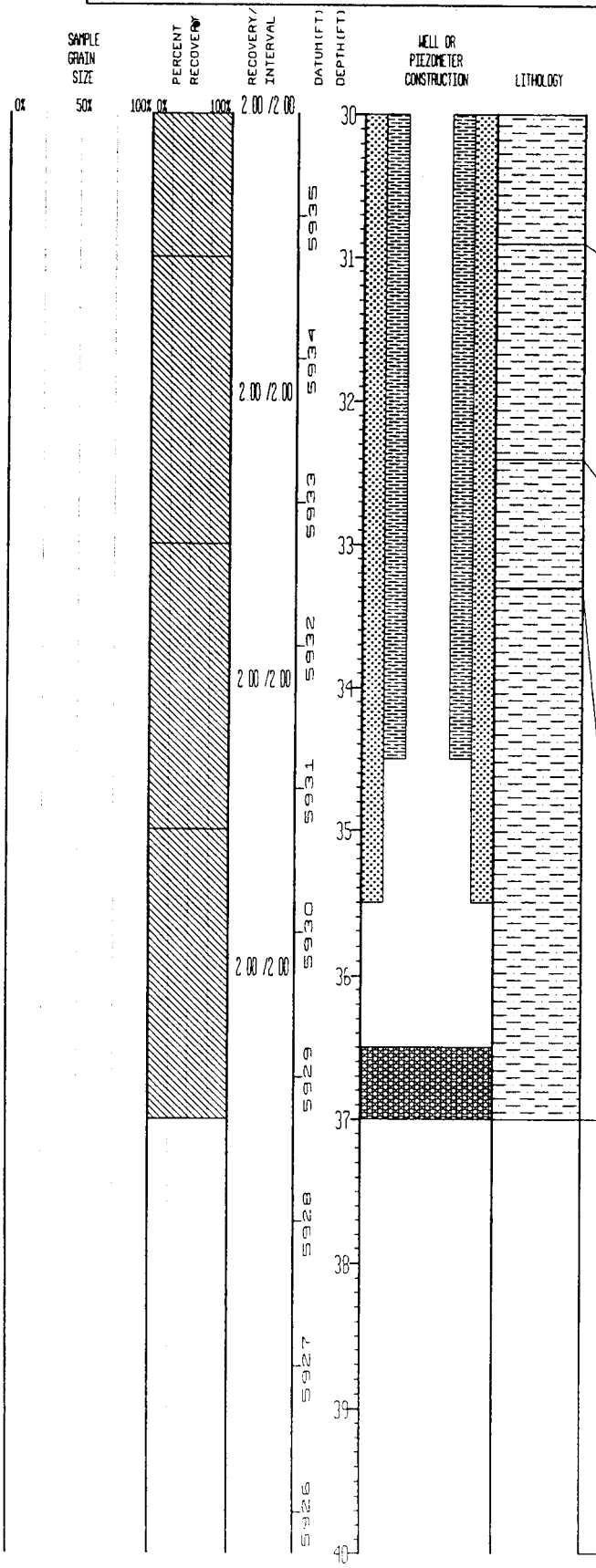
REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 18.6 FT. - 15.2 FT. BACKFILL MATERIAL: BENTONITE 37.0 FT. - 36.5 FT.

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%	0.40 /2.00	5945	20				No recovery for this interval.
						21			SANDY CLAYSTONE	Sandy Claystone with some silt - very pale orange (10YR8/2) to dark yellowish orange (10YR6/6) where iron stained, as described above.
				1.10 /2.00	5944	22				No recovery for this interval.
					5943	23			SANDY CLAYSTONE	Sandy Claystone with some silt - very pale orange (10YR8/2) to dark yellowish orange (10YR6/6) where iron stained, as described above.
				1.20 /2.00	5942	24				No recovery for this interval
					5941	25	02/11/92		SANDY CLAYSTONE	Sandy Claystone with some silt - very pale orange (10YR8/2) to light brown (5YR5/6), very fine- to medium-grained, well sorted, sub-rounded to rounded, approximately 9% porosity, argillaceous cement, moderately friable, abundant frosted quartz, some dark minerals, trace rock fragments, iron stain iron nodule at 25.8', increased clay content at 25.0-25.7', clay rip-up clast at 26.7', saturated 25% sand, 8% silt, 67% clay
				2.00 /2.00	5940	26				
BH00568WCU2					5939					VOA sample obtained from this interval
						27			SANDY CLAYSTONE	Sandy Claystone with some silt - very pale orange (10YR8/2) to light brown (5YR5/6), as described above.
				2.00 /2.00	5938	28			SANDY CLAYSTONE	Sandy Claystone with some silt - medium gray (N5) to dark yellowish orange (10YR6/6) where iron stained, very fine- to fine-grained, well sorted, sub-rounded, approximately 4% porosity, argillaceous cement, slightly friable, abundant frosted quartz, trace dark minerals, iron stain, mottled to thinly-thickly laminated, iron stain throughout, sand and clay rip-up clasts at 28.6-28.9', pseudonodules at 28.8', entire interval looks reworked, moist to saturated 15% sand, 9% silt, 76% clay
					5937	29				
				2.00 /2.00	5936	30			SANDY CLAYSTONE	Sandy Claystone with some silt - light olive gray (5Y6/1), very fine- to fine-grained, well sorted, sub-rounded to rounded,

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 37.0	GROUND ELEVATION (FT):	5965.71	PROJECT NUMBER:	002/RI	LOG OF BORING NUMBER:
NORTH:	749208.51	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	12991
EAST:	2086624.56	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/11/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 18.6 FT. - 15.2 FT. BACKFILL MATERIAL: BENTONITE 37.0 FT - 36.5 FT.

CHEMICAL SAMPLE
GRADATIONAL SA
DEPTH
SAMPLE NUMBER



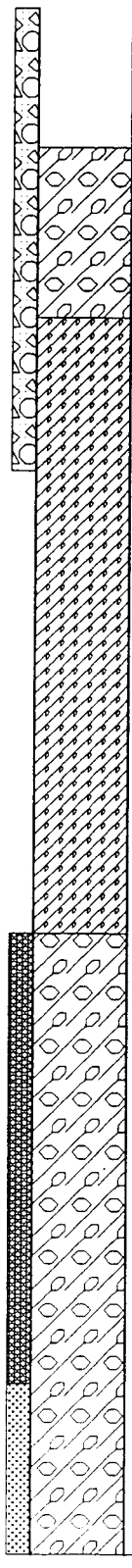
UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	approximately 7% porosity, argillaceous cement, modererately friable, abundant frosted quartz, some dark minerals, trace clear quartz, iron stain, deformed laminea - soft sediment deformation throughout, iron stain along laminea, iron nodule at 30.9', increased clay content at 29.9-30.9', saturated. 22% sand, 8% silt, 70% clay
SANDY CLAYSTONE	Sandy Claystone with some silt - dark yellowish orange (10YR6/6), very fine- to fine-grained, well sorted, rounded to well rounded, approximately 11% porosity, argillaceous cement, moderately friable, abundant iron staining, frosted quartz, some dark minerals, trace clear quartz, iron stained throughout, mottled to faintly laminated, saturated 22% sand, 12% silt, 66% clay
SANDY CLAYSTONE	Sandy Claystone with some silt - medium dark gray (N4) to grayish orange (10YR7/4) where iron stained, very fine- to medium-grained, well sorted, rounded to sub-rounded, approximately 14% porosity, argillaceous cement, moderately to higly friable, abundant frosted quartz, some dark minerals, clear quartz, iron stain, trace limonite stain, soft sediment deformation throughout, laminated, pseudonodules and flame structures at 32.5-32.9', saturated 27% sand, 8% silt, 65% clay
SANDY CLAYSTONE	Sandy Claystone with some silt - medium dark gray (N4) to grayish orange (10YR7/4) where iron stained, very fine- to medium-grained, moderately sorted, rounded to well rounded, approximately 20% porosity, argillaceous cement, highly friable, abundant frosted quartz, iron stain, some dark minerals, limonite stain, trace clear quartz, rock fragments increased clay content at 34.0-34.4', convolute bedding at 34.9-35.0', increased clay content at 36.0-37.0' 42% sand, 18% silt, 40% clay
	Total depth at 37.0 ft.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 28.3	GROUND ELEVATION (FT):	5973.68	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER
NORTH:	748960.12	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	13091
EAST:	2085991.64	LOCATOR NUMBER: G12	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/25/92	

REMARKS: OFFSET TO 07091 DIVISIONS BASED ON CORE FROM 07091, EXCEPT AT 14.0-28.0' WHERE 2' CORE RUNS WERE TAKEN.
ALL GRAB SAMPLES COLLECTED FROM OUTSIDE OF AUGER DURING REAMING.

CHEMICAL SAMPLE DEPTH
GRADATIONAL SA
SAMPLE NUMBER

SAMPLE GRAIN SIZE: 0% 50% 100%
PERCENT RECOVERY: 0% 100%
RECOVERY/INTERVAL: 0.00/2.00; 0.00/2.00; 0.00/4.00; 0.00/2.00
DATUM (FT): 5973, 5972, 5971, 5970, 5969, 5968, 5967, 5966, 5965, 5964
DEPTH (FT): 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
WELL OR PIEZOMETER CONSTRUCTION
LITHOLOGY

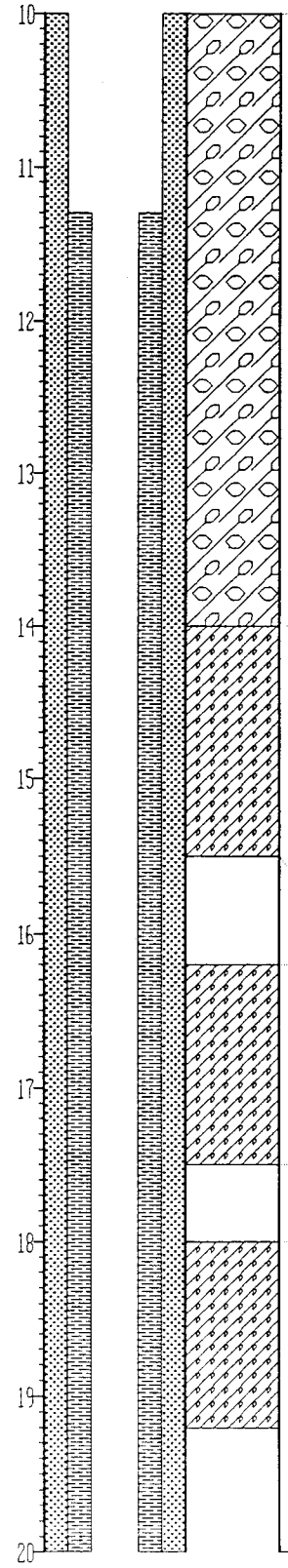


UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	Top soil, start of boring at 0.90 ft.
GC	Clayey Gravel with some sand and silt.
SC/gc	Sandy Clay with some gravel and silt.
GC/cl	Gravelly Clay with some sand and silt

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 28.3	GROUND ELEVATION (FT):	5973.68	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	748960.12	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	13091
EAST:	2085991.64	LOCATOR NUMBER: G12	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/25/92	

REMARKS: OFFSET TO 07091. DIVISIONS BASED ON CORE FROM 07091, EXCEPT AT 14.0-28.0' WHERE 2' CORE RUNS WERE TAKEN.
ALL GRAB SAMPLES COLLECTED FROM OUTSIDE OF AUGER DURING REAMING.

CHEMICAL SAMPLE
GRADATIONAL SA
DEPTH
SAMPLE NUMBER
SAMPLE GRAIN SIZE (0% 50% 100%)
PERCENT RECOVERY (0% 100%)
RECOVERY/INTERVAL
DATUM (FT)
DEPTH (FT)
WELL OR PIEZOMETER CONSTRUCTION
LITHOLOGY



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
GC	Clayey Gravel with some sand and silt.
SC/gc	Gravelly Sand with some clay and silt - light brown (5YR5/6), maximum gravel diameter > .25', average .09', fine- to coarse-grained sand, well graded, gravel is angular, sand is angular to sub-rounded, moderate plasticity, gravel is primarily quartzite, sand contains abundant quartz, some rock fragments, trace mica, feldspar, kaolinized felspar, slightly moist, bedrock contact based on cuttings and change in drilling pressure. 30% gravel, 35% sand, 15% silt, 20% clay.
	No recovery for this interval.
SC/gc	Gravelly Sand with some clay and silt - light brown (5YR5/6), as described above.
	No recovery for this interval.
SC/gc	Gravelly Sand with some clay and silt - light brown (5YR5/6), as described above.
	No recovery for this interval. Based on nearby well control, top of bedrock placed at 19.5 ft

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 28.3	GROUND ELEVATION (FT):	5973.68	PROJECT NUMBER:	OU2/RI
NORTH:	748960.12	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST:	2085991.64	LOCATOR NUMBER: 612	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	02/25/92

LOG OF BORING NUMBER: 13091

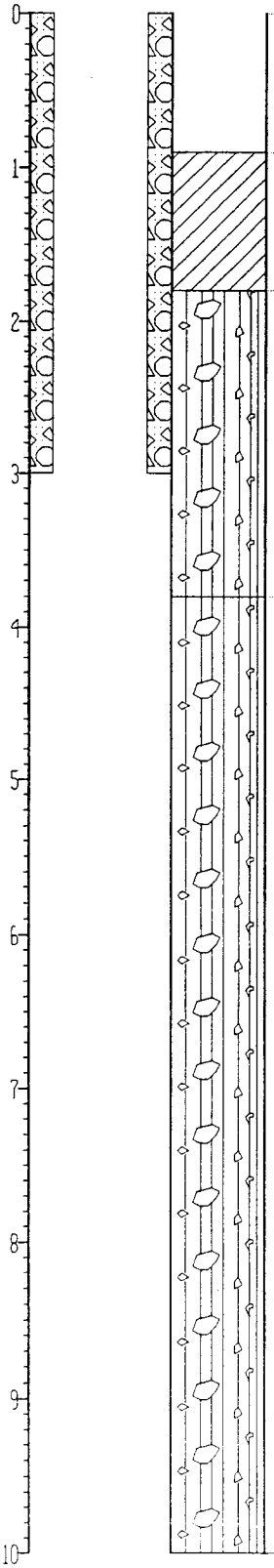
REMARKS: OFFSET TO 07091. DIVISIONS BASED ON CORE FROM 07091, EXCEPT AT 14.0-28.0' WHERE 2' CORE RUNS WERE TAKEN.
ALL GRAB SAMPLES COLLECTED FROM OUTSIDE OF AUGER DURING REAMING.

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY / INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
				0.00 /2.00	5953	20–21				
				0.00 /2.00	5952, 5951	22–23				Claystone with some silt - pale yellowish brown (10YR6/2), very fine-grained, very well sorted, sub-rounded, approximately 3% porosity, argillaceous cement, slightly to non-friable, abundant frosted quartz, dark minerals, 2'x 2' shale rip-up clast at 27.9', dry. 2% sand, 11% silt, 87% clay
				0.00 /2.20	5950, 5949	24–25				
				0.00 /1.80	5948, 5947	26–27				
					5946, 5945	28–29				Total depth at 28.3 ft
					5944	30				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 28.90	GROUND ELEVATION (FT):	5978.25	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749071.20	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	13191
EAST:	2085531.42	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/11/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 13.7 FT. - 10.7 FT.
WELL 13191 WAS REAMED. UNIT BREAKS BASED ON CORE FROM WELL 06591.

CHEMICAL SAMPLE/ GRADATIONAL SAI | DEPTH | SAMPLE NUMBER | SAMPLE GRAIN SIZE (0% 50% 100%) | PERCENT RECOVERY (0% 100%) | RECOVERY/ INTERVAL | DATUM (FT) | DEPTH (FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION



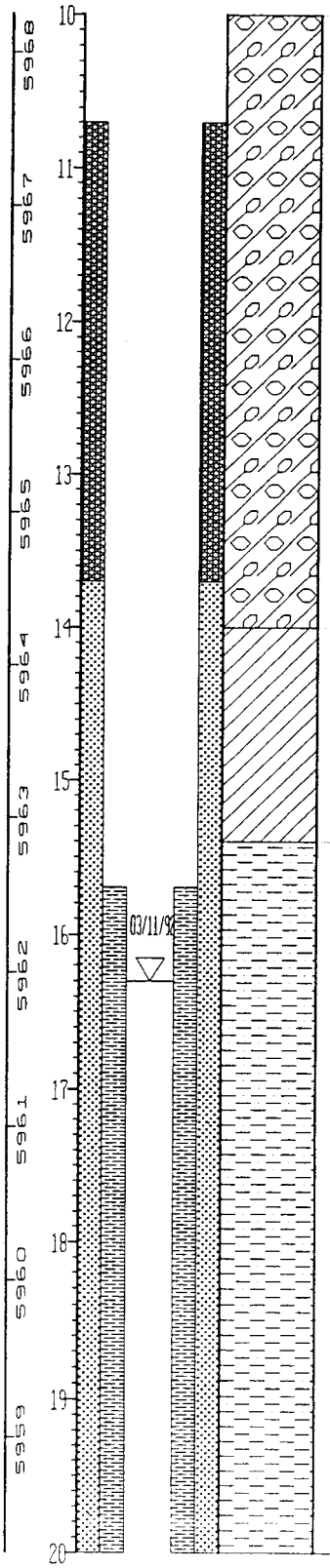
UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
CL:	Gravelly Clay with some silt and sand.
GM:	Silty Gravel with some clay and sand.
GM:	Silty Gravel with some sand and clay.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 28.90	GROUND ELEVATION (FT):	5978.25	PROJECT NUMBER:	002/RI	LOG OF BORING NUMBER:
NORTH:	749071.20	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	13191
EAST:	2085531.42	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/11/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 13.7 FT. - 10.7 FT.
WELL 13191 WAS REAMED. UNIT BREAKS BASED ON CORE FROM WELL 06591

CHEMICAL SAMPL
GRADATIONAL SA
SAMPLE NUMBER
DEPTH

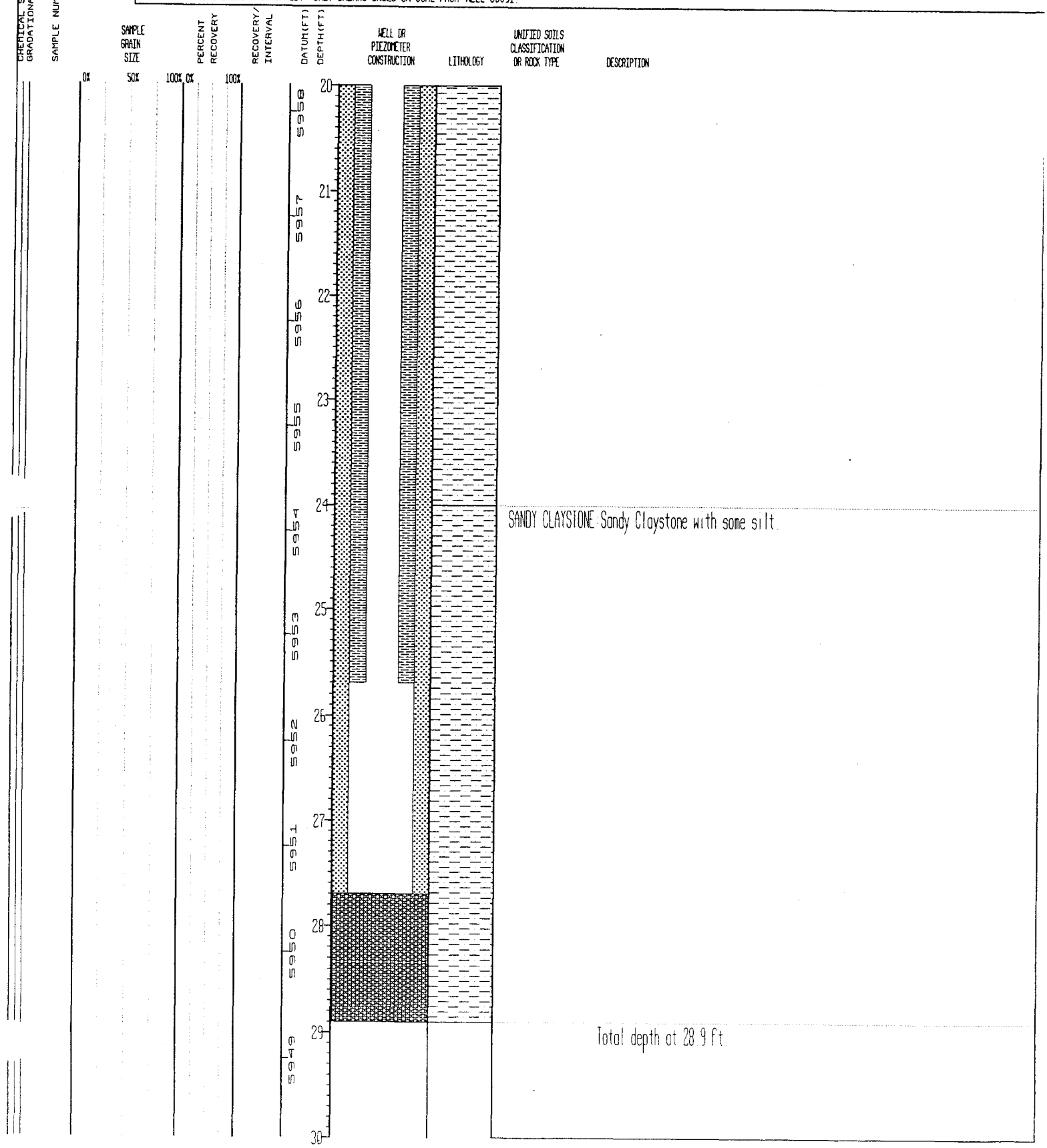
SAMPLE GRAIN SIZE (0% 50% 100%) | PERCENT RECOVERY (0% 100%) | RECOVERY/INTERVAL | DATUM (FT) | DEPTH (FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
GC	Clayey Gravel with some sand and silt.
CL	Sandy Clay with some gravel and silt
SANDY CLAYSTONE	Sandy Claystone with some silt

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 28.90	GROUND ELEVATION (FT):	5978.25	PROJECT NUMBER:	002/RI	LOG OF BORING NUMBER:
NORTH:	749071.20	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	13191
EAST:	2085531.42	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/11/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 13.7 FT. - 10.7 FT.
WELL 13191 WAS REAMED. UNIT BREAKS BASED ON CORE FROM WELL 06591.



STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 20.0	GROUND ELEVATION (FT):	5978.48	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749059.76	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	13291
EAST:	2085523.19	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/11/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 5.2 FT. - 3.2 FT.
WELL 13291 WAS REAMED. UNIT BREAKS BASED ON CORE FROM WELL 06591

CHEMICAL SAMPLE / GRADATIONAL SA.	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					5978	0				
					5977	1			CL	Gravelly Clay with some silt and sand.
					5976	2			GM	Silty Gravel with some clay and sand.
					5975	3				
					5974	4			GM	Silty Gravel with some sand and clay.
					5973	5				
					5972	6				
					5971	7				
					5970	8				
					5969	9				
						10				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 20.0	GROUND ELEVATION (FT):	5978.48	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749059.76	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	13291
EAST:	2085523.19	LOCATOR NUMBER: H12	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/11/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 5.2 FT. - 3.2 FT.
WELL 13291 WAS REAMED. UNIT BREAKS BASED ON CORE FROM WELL 06591.

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					5968	10			GC:	Clayey Gravel with some sand and silt.
					5967	11				
					5966	12				
					5965	13				
					5964	14			CL:	Sandy Clay with some gravel and silt.
					5963	15			SANDY CLAYSTONE:	Sandy Claystone with some silt.
					5962	16				
					5961	17				
					5960	18				
					5959	19				
						20				Total depth at 20.0 ft

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 41.0	GROUND ELEVATION (FT):	5923.83	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	750922.47	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	13391
EAST:	2089163.91	LOCATOR NUMBER: I16	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/19/92	

REMARKS: OFFSET TO 02591, DIVISIONS BASED ON CORE FROM 02591 EXCEPT AT 36.0-41.0' WHERE DRIVE SAMPLES WERE TAKEN. ALL GRAB SAMPLES COLLECTED FROM OUTSIDE OF AUGER DURING DRILLING. N/A FOR BACKFILL BECAUSE CORE BARREL WAS DRIVEN INTO BEDROCK THEREFORE SUMP WAS PLACED IN DRIVE HOLE.

CHEMICAL SAMPL
GRADATIONAL SA.
DEPTH
SAMPLE NUMBER

SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
0% 50% 100%	0% 100%							Top soil, start of boring at 0.90 ft
		0.00 /2.00	5923	1			SC:	Clayey Sand with some gravel and silt.
			5922	2			GM:	Sandy Gravel with some silt and clay
		0.00 /2.00	5921	3				
			5920	4				
		0.00 /2.00	5919	5				
			5918	6				
		0.00 /2.00	5917	7				
			5916	8				
		0.00 /2.00	5915	9				
			5914	10				

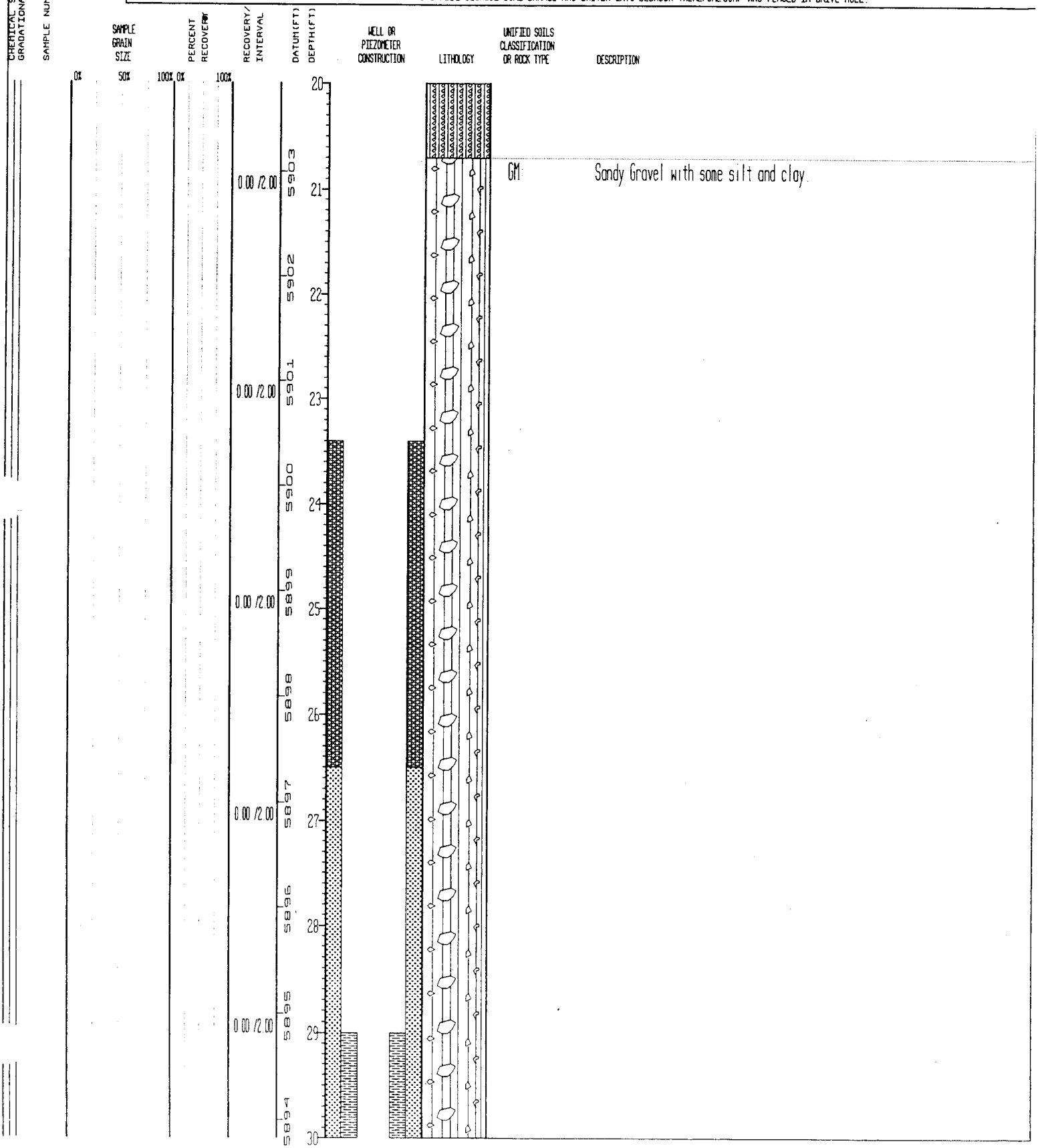
STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 41.0	GROUND ELEVATION (FT):	5923.83	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	750922.47	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	13391
EAST:	2089163.91	LOCATOR NUMBER: I16	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/19/92	

REMARKS: OFFSET TO 02591, DIVISIONS BASED ON CORE FROM 02591 EXCEPT AT 36.0-41.0' WHERE DRIVE SAMPLES WERE TAKEN. ALL GRAB SAMPLES COLLECTED FROM OUTSIDE OF AUGER DURING DRILLING. N/A FOR BACKFILL BECAUSE CORE BARREL WAS DRIVEN INTO BEDROCK THEREFORE SUMP WAS PLACED IN DRIVE HOLE.

CHEMICAL SAMPL / GRADATIONAL SA / DEPTH	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
				0.00 /2.00	5913	10–11				
				0.00 /2.00	5912	11–12				
				0.00 /2.00	5911	12–13				
				0.00 /2.00	5910	13–14			SC	Clayey Sand with some silt
				0.00 /2.00	5909	14–15				
				0.00 /2.00	5908	15–16				
				0.00 /2.00	5907	16–17				
				0.00 /2.00	5906	17–18			SM/gm	Gravelly Sand with some silt and clay
				0.00 /2.00	5905	18–19			SM	Silty Sand with some clay
					5904	19–20				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 41.0	GROUND ELEVATION (FT):	5923.83	PROJECT NUMBER	OU2/RI	LOG OF BORING NUMBER
NORTH:	750922.47	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	13391
EAST:	2089163.91	LOCATOR NUMBER: I16	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/19/92	

REMARKS: OFFSET TO 02591, DIVISIONS BASED ON CORE FROM 02591 EXCEPT AT 36.0-41.0' WHERE DRIVE SAMPLES WERE TAKEN. ALL GRAB SAMPLES COLLECTED FROM OUTSIDE OF AUGER DURING DRILLING. N/A FOR BACKFILL BECAUSE CORE BARREL WAS DRIVEN INTO BEDROCK THEREFORE SUMP WAS PLACED IN DRIVE HOLE.



STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 41.0	GROUND ELEVATION (FT): 5923.83	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:
NORTH:	750922.47	AREA: NE TRENCHES	CASING DIAMETER (IN): 2.0	GEOLOGIST: J.P. O'BRIEN	13391
EAST:	2089163.91	LOCATOR NUMBER: I16	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 03/19/92	

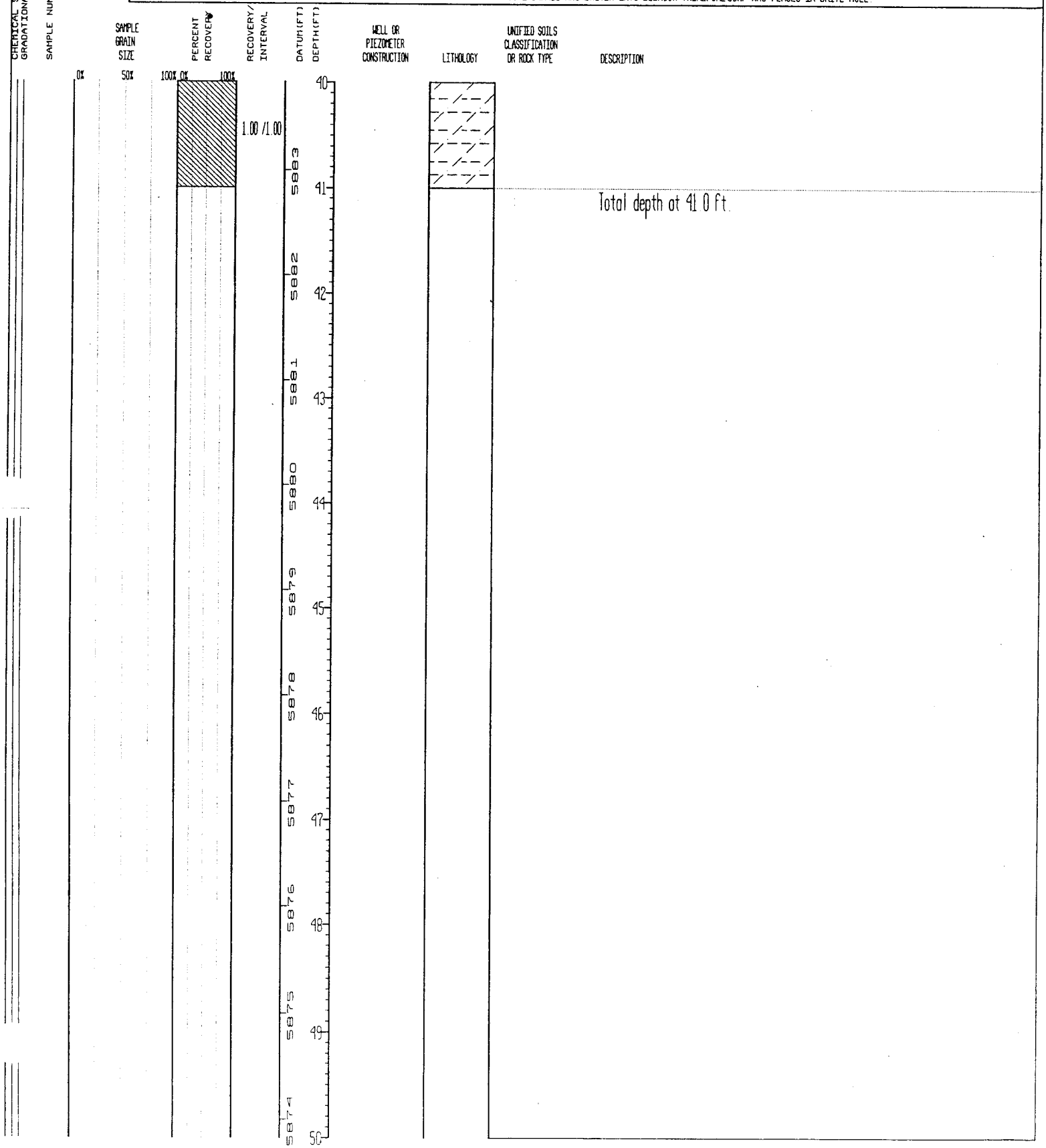
REMARKS: OFFSET TO 02591, DIVISIONS BASED ON CORE FROM 02591 EXCEPT AT 36.0-41.0' WHERE DRIVE SAMPLES WERE TAKEN. ALL GRAB SAMPLES COLLECTED FROM OUTSIDE OF AUGER DURING DRILLING. N/A FOR BACKFILL BECAUSE CORE BARREL WAS DRIVEN INTO BEDROCK THEREFORE SOMP WAS PLACED IN DRIVE HOLE

CHEMICAL SAMPL GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%			30				
				0.00 /2.00	5893	31			GC:	Sandy Gravel with some clay and silt
					5892	32				
				0.00 /2.00	5891	33				
					5890	34			GM:	Sandy Gravel with some silt and clay
									GC:	Clayey Gravel - light brown (5YR5/6), maximum gravel diameter > .25', average .06', fine- to coarse-grained sand, well graded (bimodal), sub-rounded to rounded, moderate plasticity, gravel is primarily quartzite with some granite at 36.5-36.6', 36.9', sand contains abundant quartz, rock fragments, some feldspar, trace dark minerals, kaolinized feldspar, mica, increased sand content and no clay at 36.0-36.4', sandy clay matrix at 36.4-37.0', increased clay content at 37.0-38.6', contact with bedrock sharp, irregular, and iron stained, moist to saturated 67% gravel, 5% sand, 5% silt, 23% clay
				0.00 /2.00	5889	35				
					5888	36				
										VOA sample obtained from this interval
				2.00 /2.00	5887	37			GC:	Clayey Gravel - light brown (5YR5/6), as described above. Top of bedrock at approximately 38.6 ft
					5886		03/19/92		SILTY CLAYSTONE	Silty Claystone with some sand - yellowish gray (5Y7/2) to dark yellowish orange (10YR6/6), as described below
	BH00578W012					38				VOA sample obtained from this interval
				1.90 /2.00	5885	39			SILTY CLAYSTONE	Silty Claystone with some sand - yellowish gray (5Y7/2) to dark yellowish orange (10YR6/6) where iron stained at 38.8-40.0', very fine- to medium-grained, well to moderately sorted, sub-angular to rounded, approximately 7% porosity, argillaceous cement, moderately to highly friable, abundant quartz, some feldspar, mica, dark minerals, trace iron stain, 75 degree fracture with separation of .02' filled with iron stained sand at 40.3-40.9', thinly bedded to thinly laminated, moisture content unknown 13% sand, 22% silt, 65% clay
	BH00575W012				5884	40				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 41.0	GROUND ELEVATION (FT):	5923.83	PROJECT NUMBER:	OU2/RI
NORTH: 750922.47	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST: 2089163.91	LOCATOR NUMBER: I16	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/19/92

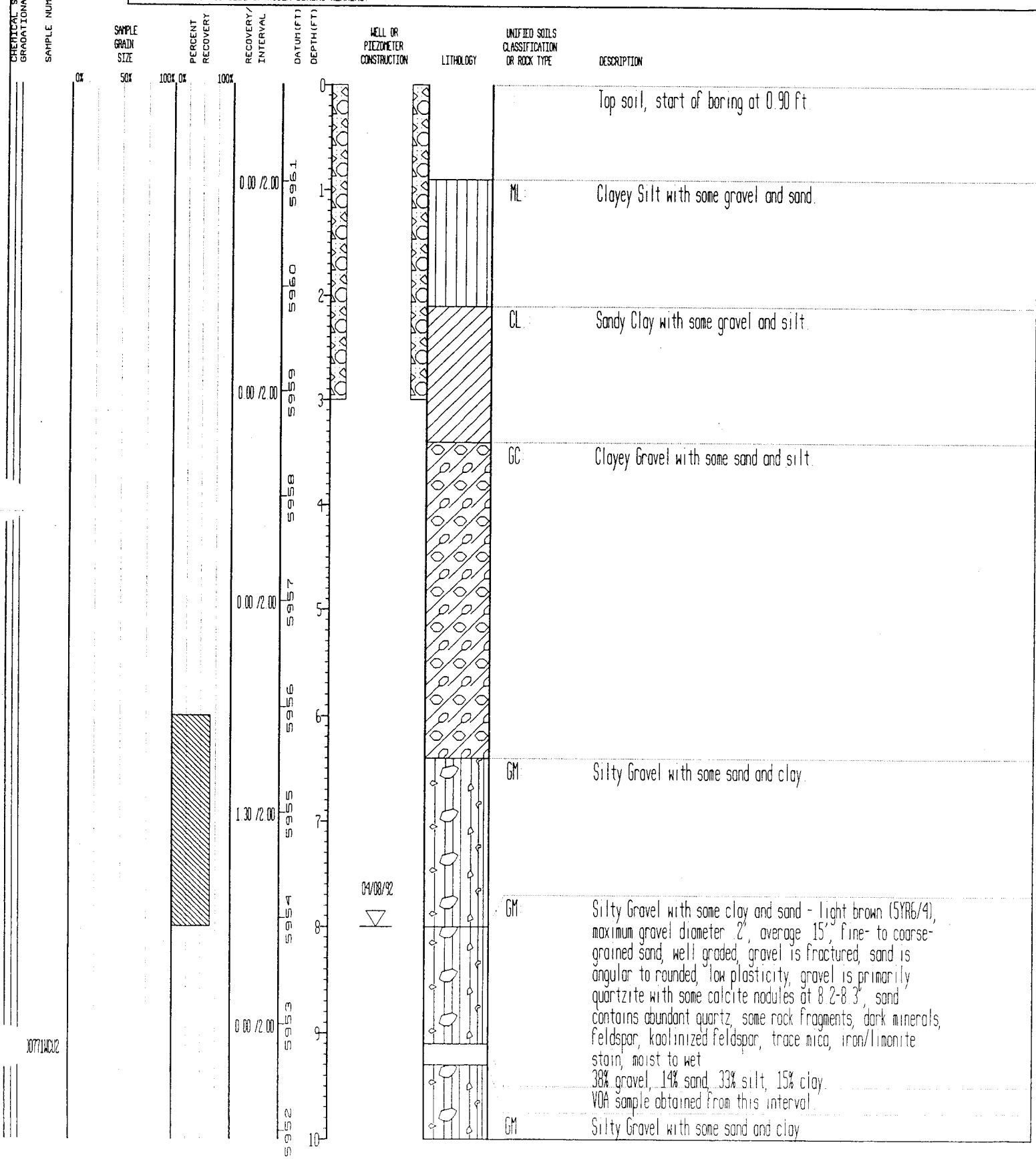
LOG OF BORING NUMBER: 13391

REMARKS: OFFSET TO 02591, DIVISIONS BASED ON CORE FROM 02591 EXCEPT AT 36.0-41.0' WHERE DRIVE SAMPLES WERE TAKEN. ALL GRAB SAMPLES COLLECTED FROM OUTSIDE OF AUGER DURING DRILLING. N/A FOR BACKFILL BECAUSE CORE BARREL WAS DRIVEN INTO BEDROCK THEREFORE SUMP WAS PLACED IN DRIVE HOLE.



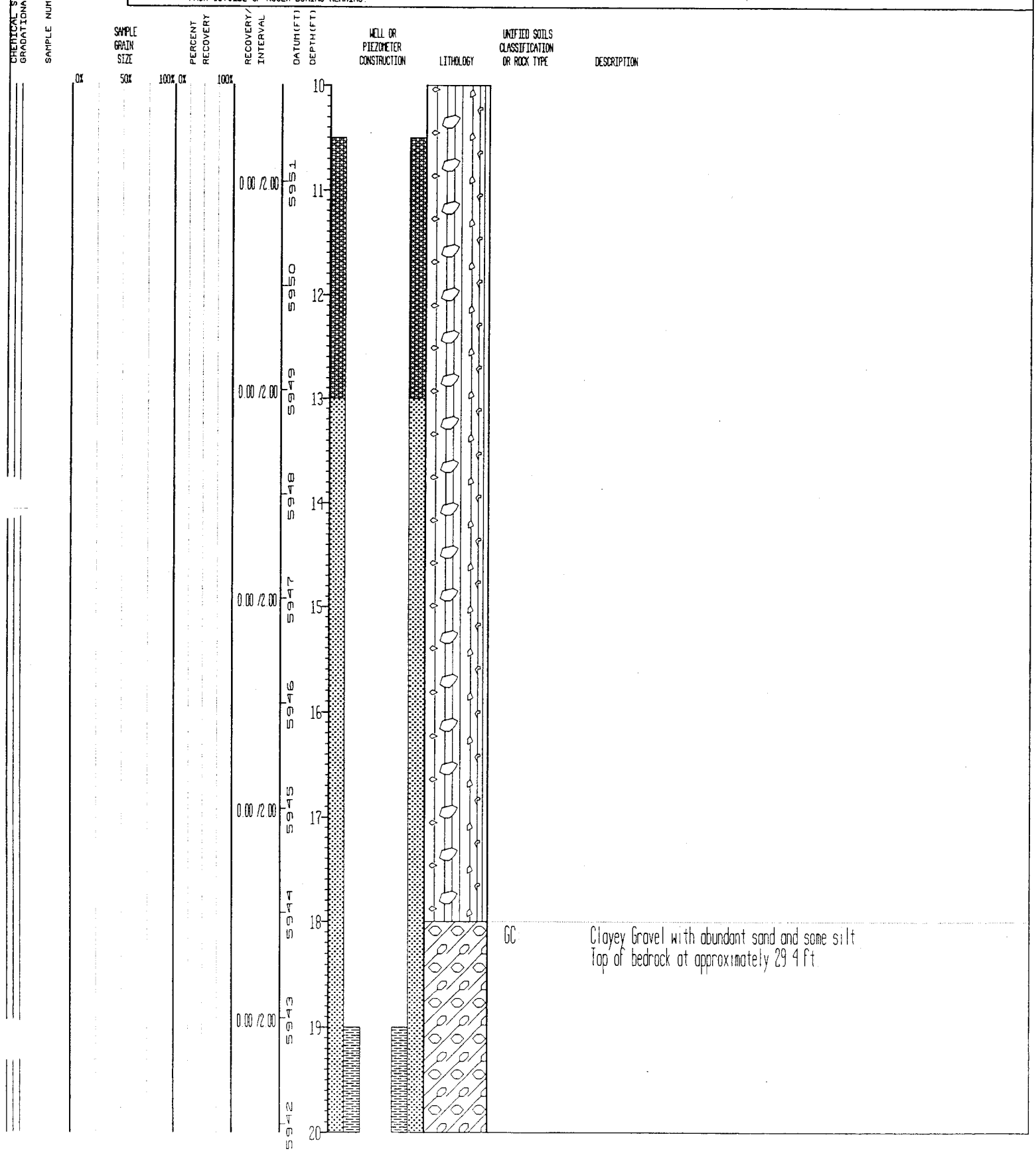
STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 31.0	GROUND ELEVATION (FT):	5961.92	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749488.54	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	13491
EAST:	2086731.84	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/07/92	

REMARKS: OFFSET TO 01991, DIVISIONS BASED ON CORE FROM 01991 EXCEPT AT 8.0-9.3' WHERE A DRIVE SAMPLE WAS TAKEN. ALL GRAB SAMPLES COLLECTED FROM OUTSIDE OF AUGER DURING REAMING.



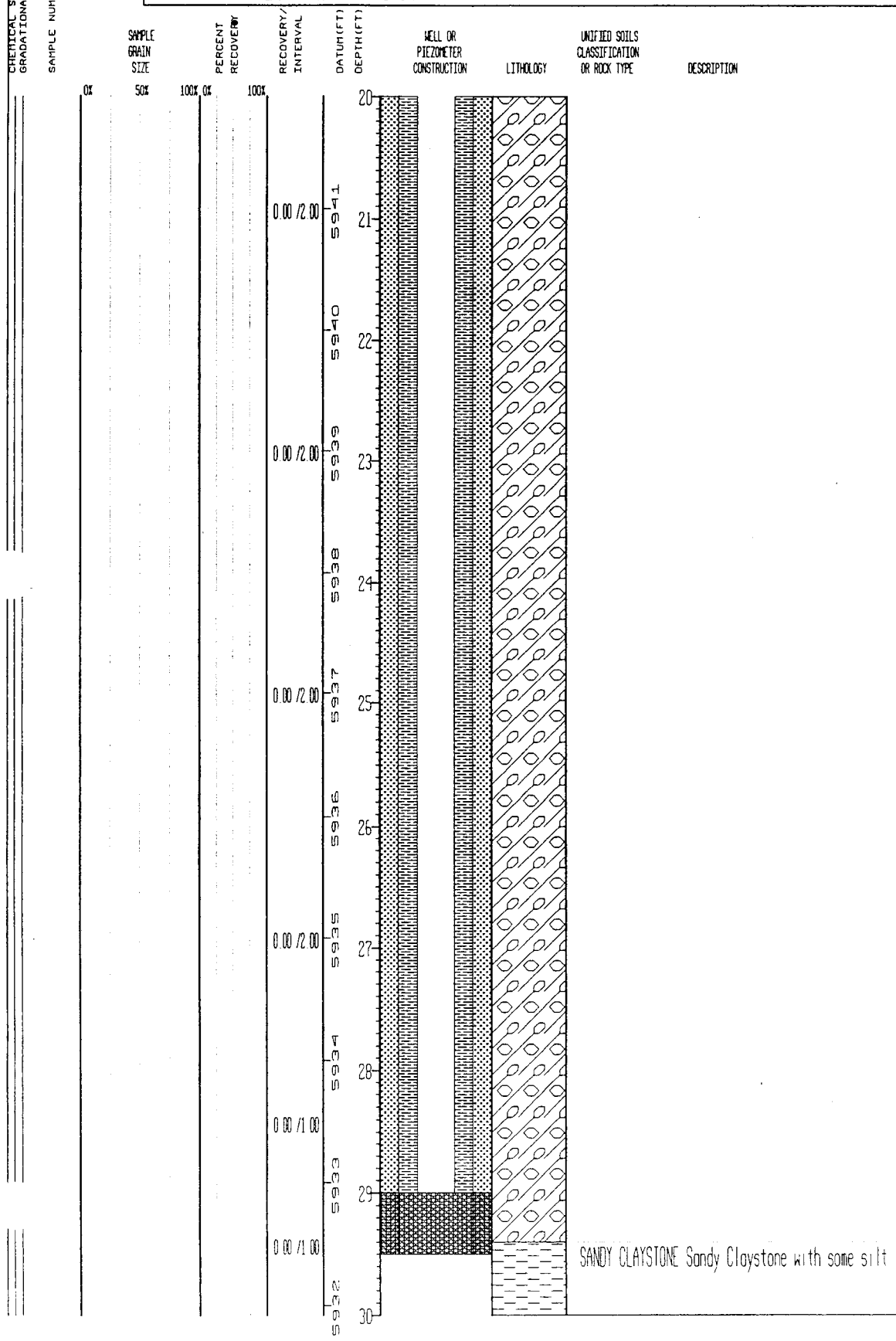
STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 31.0	GROUND ELEVATION (FT):	5961.92	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749488.54	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	13491
EAST:	2086731.84	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/07/92	

REMARKS: OFFSET TO 01991, DIVISIONS BASED ON CORE FROM 01991 EXCEPT AT 8.0-9.3' WHERE A DRIVE SAMPLE WAS TAKEN. ALL GRAB SAMPLES COLLECTED FROM OUTSIDE OF AUGER DURING REAMING.



STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 31.0	GROUND ELEVATION (FT):	5961.92	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749488.54	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	13491
EAST:	2086731.84	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/07/92	

REMARKS: OFFSET TO OU1991, DIVISIONS BASED ON CORE FROM OU1991 EXCEPT AT 8.0-9.3' WHERE A DRIVE SAMPLE WAS TAKEN. ALL GRAB SAMPLES COLLECTED FROM OUTSIDE OF AUGER DURING REAMING.



STATE PLANE COORDINATE		TOTAL DEPTH (FT): 31.0	GROUND ELEVATION (FT):	5961.92	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749488.54	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	13491
EAST:	2086731.84	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/07/92	

REMARKS: OFFSET TO 01991, DIVISIONS BASED ON CORE FROM 01991 EXCEPT AT 8.0-9.3' WHERE A DRIVE SAMPLE WAS TAKEN. ALL GRAB SAMPLES COLLECTED FROM OUTSIDE OF AUGER DURING REAMING.

CHEMICAL SAMPLE	GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			0% 50% 100%	0% 100%	0.00/1.00	5931	30				
						5930	31				Total depth at 31.0 ft.
						5929	32				
						5928	33				
						5927	34				
						5926	35				
						5925	36				
						5924	37				
						5923	38				
						5922	39				
							40				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 18.0	GROUND ELEVATION (FT):	5965.92	PROJECT NUMBER:	OU2/RI
NORTH: 749204.43	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST: 2086611.78	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/13/92

LOG OF BORING NUMBER: 13591

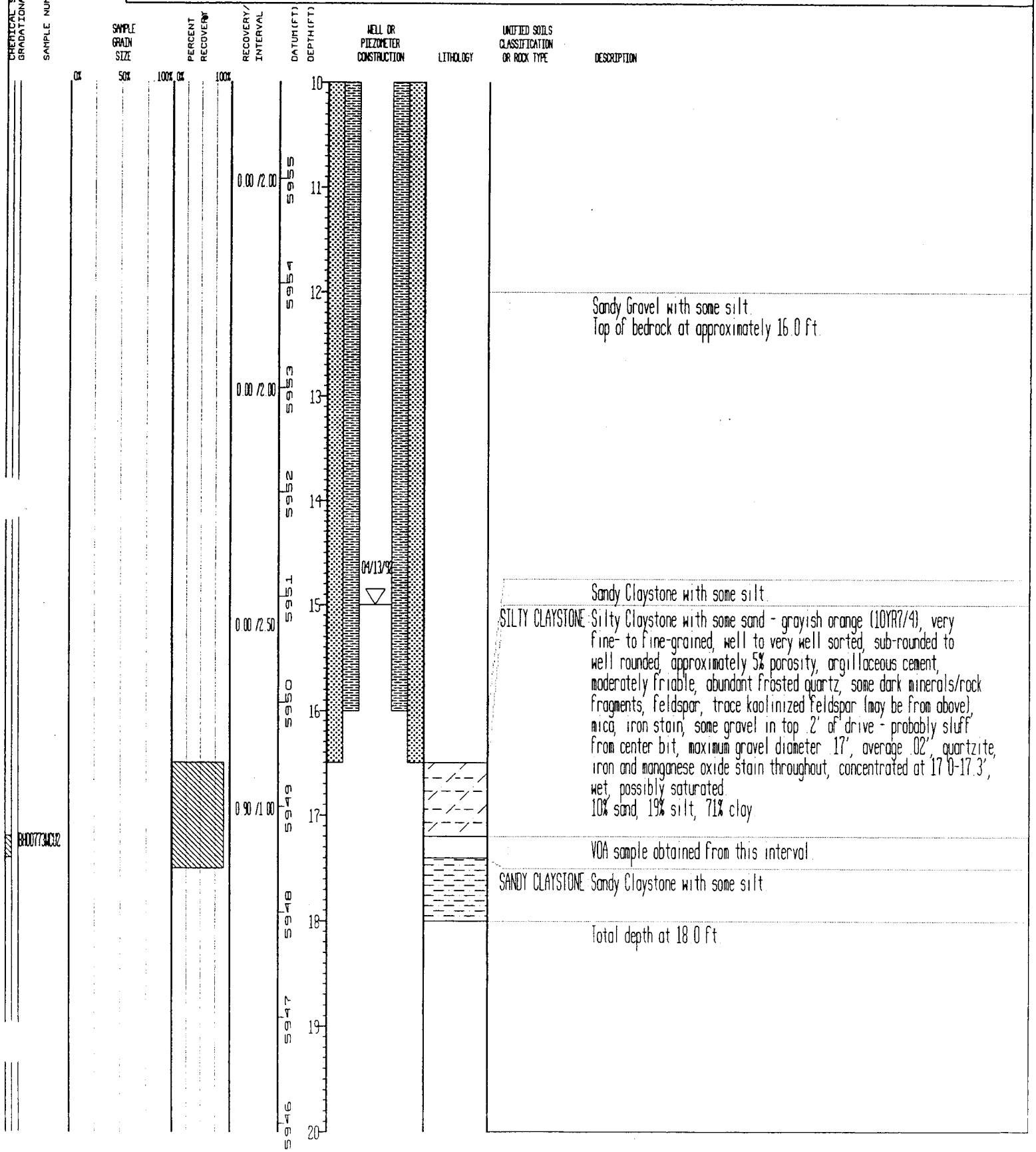
REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 5.5 FT. - 2.5 FT. OFFSET TO 00291 AND 12991, DIVISIONS BASED ON CORE FROM 00291, EXCEPT AT 16.5 - 17.4' WHERE A DRIVE SAMPLE WAS TAKEN. ALL GRAB SAMPLES WERE COLLECTED FROM OUTSIDE OF AUGER WHILE REAMING (CUTTINGS).

DEPTH	CHEMICAL SAMPT / GRADATIONAL SI	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
							0				Top soil, start of boring at 0.90 ft.
					0.00 /2.00	5965	1				Sandy Gravel with some silt.
						5964	2				
											Gravelly Sand with abundant clay.
					0.00 /2.00	5963	3				
						5962	4				
											Sandy Gravel with some silt and clay.
					0.00 /2.00	5961	5				
						5960	6				
					0.00 /2.00	5959	7				
						5958	8				Gravelly Sand with some silt and clay
					0.00 /2.00	5957	9				
						5956	10				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 18.0	GROUND ELEVATION (FT):	5965.92	PROJECT NUMBER:	OU2/RI
NORTH:	749204.43	AREA: 903 PAD	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST:	2086611.78	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/13/92

LOG OF BORING NUMBER: 13591

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 5.5 FT. - 2.5 FT. OFFSET TO 00291 AND 12991, DIVISIONS BASED ON CORE FROM 00291, EXCEPT AT 16.5 - 17.4' WHERE A DRIVE SAMPLE WAS TAKEN. ALL GRAB SAMPLES WERE COLLECTED FROM OUTSIDE OF AUGER WHILE REAMING (CU TTINGS).



STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 57.0	GROUND ELEVATION (FT):	5947.03	PROJECT NUMBER:	002/RI
NORTH: 750055.58	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST: 2087602.73	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/09/92
REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 14.6 FT. - 11.6 FT.					

LOG OF BORING NUMBER: 20091

CHEMICAL SAMPLE DEPTH
GRADATIONAL SAMPLE DEPTH
SAMPLE NUMBER

SAMPLE GRAIN SIZE: 0% 50% 100%

PERCENT RECOVERY: 0% 100%

RECOVERY/INTERVAL: 0.50 /2.00; 0.00 /2.00; 1.10 /2.00; 1.20 /2.00; 1.60 /2.00

DATUM (FT): 5947, 5946, 5945, 5944, 5943, 5942, 5941, 5940, 5939, 5938

DEPTH (FT): 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

WELL OR PIEZOMETER CONSTRUCTION

LITHOLOGY

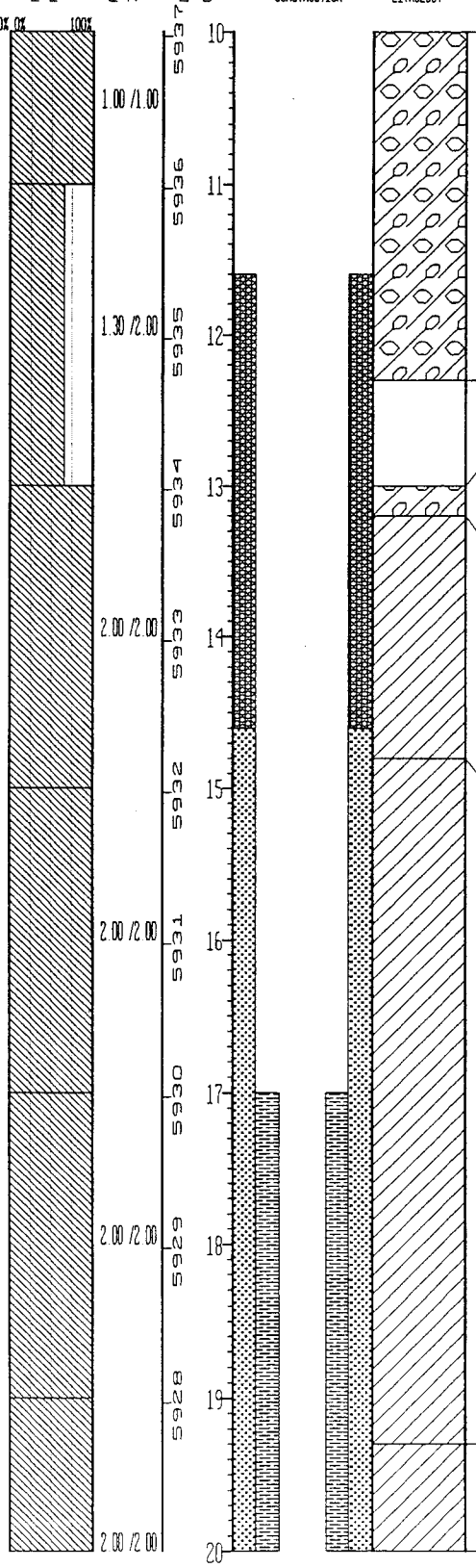
UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	Top soil, start of boring at 0.90 ft.
CL	Gravelly Clay with some silt and sand - grayish brown (5YR3/2), maximum gravel diameter .21', average .07', fine- to coarse-grained sand, well graded, angular to sub-rounded, low to medium plasticity, gravel is primarily caliche coated quartzite and weathered granite, sand contains abundant carbonaceous/organic material, quartz, some feldspar, rock fragments, trace mica, caliche nodules at 1.2-1.4', moist 28% gravel, 19% sand, 22% silt, 31% clay
	No recovery for this interval.
GC	Clayey gravel with some sand and silt - light brown (5YR6/4) where abundant caliche (2.0-6.3'), otherwise light brown (5YR5/6) to moderate brown (5YR4/4), maximum gravel diameter > 25', average 1', fine- to coarse-grained sand, well graded, sub-angular to sub-rounded, low plasticity, gravel is primarily quartzite with some pale olive (10Y6/2) sandy clay clasts, sand contains abundant quartz, some rock fragments, feldspar, dark minerals, trace mica, calcrete, epidote, pale olive sandy clay clast at 6.8-7.0', increased sand content at 12.0-13.2', dry 46% gravel, 18% sand, 17% silt, 19% clay
	No recovery for this interval.
GC	Clayey Gravel with some sand and silt - light brown (5/4) where abundant caliche (2.0-6.3'), otherwise light brown (5YR5/6) to moderate brown (5YR4/4), as described above.
	No recovery for this interval
GC	Clayey Gravel with some sand and silt - light brown (5YR6/4) where abundant caliche (2.0-6.3'), otherwise light brown (5YR5/6) to moderate brown (5YR4/4), as described above
	No recovery for this interval

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 57.0	GROUND ELEVATION (FT):	5947.03	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	750855.58	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	20091
EAST:	2087602.73	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/09/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 14.6 FT. - 11.6 FT.

CHEMICAL SAMPL
GRADATIONAL SA
SAMPLE NUMBER
DEPTH

SAMPLE GRAIN SIZE (0% 50% 100%) | PERCENT RECOVERY (0% 100%) | RECOVERY/INTERVAL | DATUM (FT) | DEPTH (FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
GC	Clayey Gravel with some sand and silt - light brown (5YR6/4) where abundant caliche (2.0-6.3'), otherwise light brown (5YR5/6) to moderate brown (5YR4/4), as described above.
	No recovery for this interval.
GC	Clayey Gravel with some sand and silt - light brown (5YR6/4) where abundant caliche (2.0-6.3'), otherwise light brown (5YR5/6) to moderate brown (5YR4/4), as described above.
CL	Sandy Clay with some silt - light brown (5YR5/6), maximum gravel diameter .05', average .02', sand is fine- to coarse-grained, poorly graded, angular to rounded, high plasticity, gravel is primarily quartzite, sand contains abundant quartz, trace feldspar, rock fragments, dark minerals, mica, kaolinized feldspar throughout, trace carbonaceous material at 14.4-14.8', pale olive (10Y6/2) sandy clay rip-up clasts at 13.5-13.7', slightly moist. 1% gravel, 39.5% sand, 11.5% silt, 48% clay.
CL	Sandy Clay with some silt - moderate brown (5YR4/4), maximum gravel diameter .07', average .03', sand is fine- to medium-grained, poorly graded, angular to rounded, high plasticity, gravel is primarily quartzite, sand contains abundant quartz, trace rock fragments, feldspar, mica, kaolinized feldspar, epidote, streaks of pale olive (10Y6/2) sandy clay throughout, caliche nodules at 15.7', 16.3', 16.6', carbonaceous material at 19.0-19.3', slightly moist. 1% gravel, 35% sand, 7% silt, 57% clay.
CL	Sandy Clay with some silt - moderate brown (5YR4/4), maximum gravel diameter .04', sand is fine- to medium-grained, poorly graded, sub-angular to sub-rounded, medium plasticity, sand contains

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 57.0	GROUND ELEVATION (FT):	5947.03	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	750055.58	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	20091
EAST:	2087602.73	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/09/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 14.6 FT. - 11.6 FT.

CHEMICAL SAMPLE
GRADATIONAL SAMPLE
SAMPLE NUMBER
DEPTH

SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
0% 50% 100%	0% 100%	2.00 /2.00	5927	20				abundant quartz, trace rock fragments, feldspar, kaolinized feldspar, mica, trace carbonaceous material throughout, slightly moist. 1% gravel, 45% sand, 6% silt, 48% clay
			5926	21			SC:	Clayey Sand with some silt - moderate brown (5YR4/4), maximum gravel diameter .08', average .01', sand is fine- to coarse-grained, poorly graded, sub-rounded, medium plasticity, gravel is primarily quartzite, sand contains abundant quartz, some rock fragments, trace dark minerals, mica, kaolinized feldspar, carbonaceous material throughout, wood fragments at 22.4-22.7', 22.9', pale olive (10Y6/2) sandy clay clasts at 22.7-22.9', slightly moist. 1% gravel, 54% sand, 12% silt, 33% clay.
		2.00 /2.00	5925	22				
			5924	23			CL./SC:	Clayey Sand with some silt - light brown (5YR5/6), maximum gravel diameter .03', average .02', sand is fine- to coarse-grained, well graded, sub-angular to sub-rounded, medium plasticity, gravel is primarily quartzite, sand contains abundant quartz, some rock fragments, trace dark minerals, mica, kaolinized feldspar, feldspar, some carbonaceous material throughout, maximum carbonaceous material diameter > .03' x .03' at 23.3-23.9', pale olive (10Y6/2) sandy clay clasts and faint laminations at 24.1-24.7', slightly moist. 1% gravel, 48% sand, 9% silt, 42% clay
		2.00 /2.00	5923	24				
			5922	25	04/09/92		CL:	Sandy Clay with some silt - light olive gray (5Y6/1) to moderate brown (5YR4/4), maximum gravel diameter .06', average .03', fine- to coarse-grained sand, poorly graded, gravel is rounded, sand is sub-rounded to rounded, medium plasticity, gravel is primarily quartzite, sand contains abundant quartz, trace rock fragments, mica, iron and limonite stain, thinly to moderately interbedded, sandy alluvial material and gray sandy clay (bedrock?), saturated. 1% gravel, 35% sand, 7% silt, 57% clay
		1.30 /2.00	5921	26				
			5920	27				No recovery for this interval.
							GC:	Sandy Gravel with some clay and silt - light brown (5YR6/4), maximum gravel diameter > .25', average .1', sand is fine- to coarse-grained, well graded, gravel is rounded, sand is angular to sub-rounded, low plasticity, gravel is primarily quartzite with some granite and trace arkosic arenite at 31.6', sand contains abundant quartz, some rock fragments, iron stain, feldspar, dark minerals, trace mica, increased sand - decreased gravel at 27.3-27.6', bedrock contact is sharp and scoured with gravel loaded into bedrock, saturated. 60% gravel, 21% sand, 8% silt, 11% clay
		1.30 /2.00	5919	28				
			5918	29				No recovery for this interval.
		1.00 /2.00		30			GC:	Sandy Gravel with some clay and silt - light brown (5YR6/4), as described above

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 57.0	GROUND ELEVATION (FT):	5947.03	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 750055.58	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	20091
EAST: 2087602.73	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/09/92	

REMARKS: HOLLOW-STEM AUGER BENTONITE SEAL 14.6 FT - 11.6 FT

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%	1.00 /2.00	5917	30				No recovery for this interval.
					5916	31			GC	Sandy Gravel with some clay and silt - light brown (5YR6/4), as described above. Top of bedrock at 31.7 ft.
				2.00 /2.00	5915	32			CLAYSTONE	Claystone with some sand - dark yellowish orange (10YR6/6) where iron stained to light olive gray (5Y5/2), very fine- to fine-grained, very well sorted, sub-rounded to rounded, approximately 3% porosity, argillaceous cement, slightly friable, abundant quartz, some iron stain, trace dark minerals, rock fragments, mica, thinly laminated to thinly bedded, carbonaceous material along laminea, some iron stain throughout, abundant iron stain at 31.7-33.8', iron nodules at 33.1', caliche nodules at 34.4-34.7', faint cross-laminations at 34.7-35.0', slightly moist. 7% sand, 5% silt, 88% clay
				2.00 /2.00	5914	33				
					5913	34				
					5912	35			CLAYSTONE	Claystone with some silt - grayish yellow (5Y8/4), very fine-grained, very well sorted, sub-angular, approximately 2% porosity, argillaceous cement, slightly friable, abundant frosted quartz, trace dark minerals, mottled to thickly laminated, slightly moist. 5% sand, 10% silt, 85% clay.
				2.00 /2.00	5911	36				
					5910	37				
				2.00 /2.00	5909	38			CLAYEY SANDSTONE	Clayey Sandstone with some silt - yellowish gray (5Y7/2) to dusky yellow (5Y6/4), very fine- to medium-grained, moderately sorted, sub-rounded to well rounded, approximately 13% porosity, argillaceous cement, moderately friable, abundant frosted quartz, some dark minerals, trace rock fragments, clear quartz, iron stain, clay rip-up clast at 37.5-37.8', increased sand content at 38.5-39.0', ripple laminations and faint cross-laminations at 38.6', 20 degree laminations-possibly cross laminea at 38.85', moist. 65% sand, 6% silt, 29% clay
					5908	39				
				2.00 /2.00		40			CLAYEY SANDSTONE	Clayey Sandstone with some silt - yellowish gray (5Y7/2) to dark yellowish orange (10YR6/6) where iron stained (39.9-40.0'),

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 57.0	GROUND ELEVATION (FT):	5947.03	PROJECT NUMBER:	OU2/RI
NORTH:	750055.58	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST:	2087602.73	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/09/92

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 14.6 FT. - 11.6 FT.

LOG OF BORING NUMBER: 20091

CHEMICAL SAMPLE
GRADATIONAL SA.
SAMPLE NUMBER
DEPTH

SAMPLE GRAIN SIZE: 0% 50% 100%

PERCENT RECOVERY: 0% 100%

RECOVERY/INTERVAL: 2.00/2.00; 1.70/2.00; 2.00/2.00; 1.10/2.00; 1.90/2.00; 0.90/2.00

DATUM (FT): 5907, 5906, 5905, 5904, 5903, 5902, 5901, 5900, 5899, 5898

DEPTH (FT): 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50

WELL OR PIEZOMETER CONSTRUCTION

LITHOLOGY

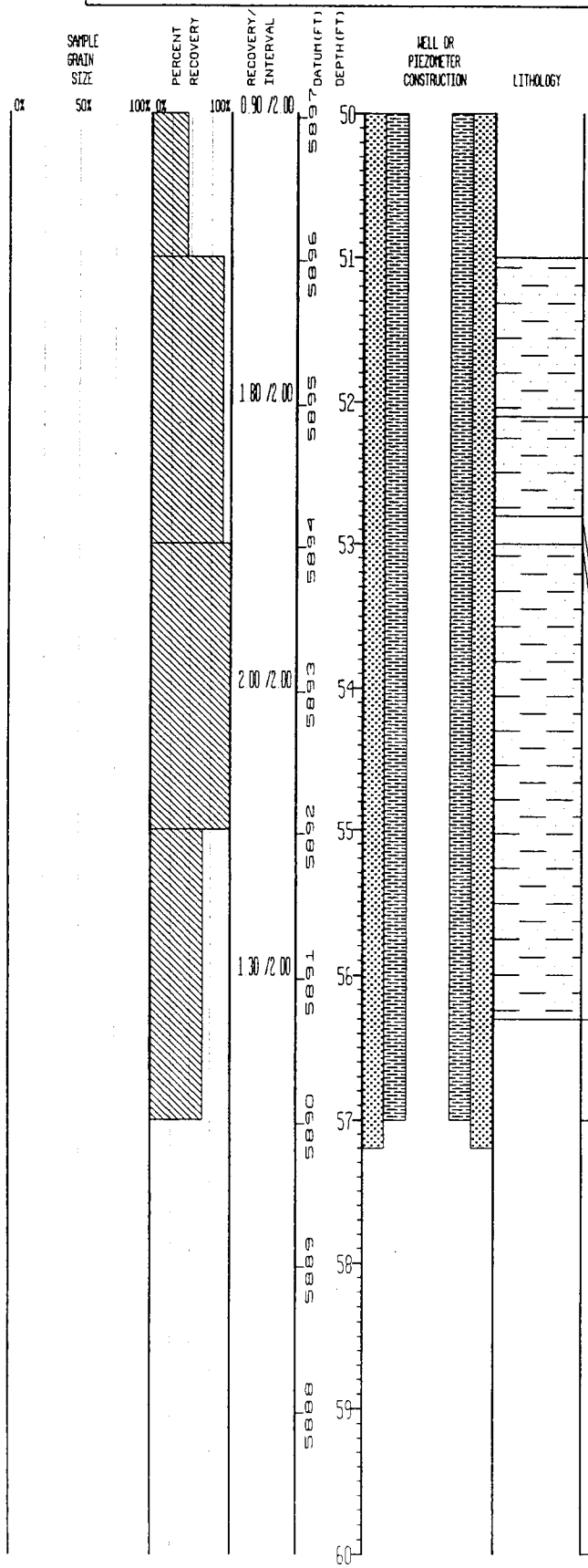
UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	very fine- to medium-grained, moderately sorted, sub-rounded to well rounded, approximately 11% porosity, argillaceous cement, highly friable, abundant frosted quartz, some dark minerals, iron stain, trace clear quartz, biotite, increased clay content at 39.0-39.8', increased sand content at 39.9-40.0', moist. 63% sand, 15% silt, 22% clay.
CLAYEY SANDSTONE	Clayey Sandstone with some silt - yellowish gray (5Y7/2) to pale yellowish orange (10YR8/6) where iron stained (41.1-41.2', 41.7-41.8', 42.3'), very fine- to medium-grained, well sorted, sub-rounded to well rounded, approximately 8% porosity, argillaceous cement, slightly friable, abundant frosted quartz, some iron and limonite stain, trace dark minerals, rock fragments, mica, dry to moist. 43% sand, 15% silt, 42% clay.
CLAYEY SANDSTONE	Clayey Sandstone with some silt - yellowish gray (5Y7/2) to dark yellowish orange (10YR6/6) where iron stained, very fine- to medium-grained, moderately sorted, rounded to well rounded, approximately 16% porosity, argillaceous cement, highly friable, abundant frosted quartz, some iron stain, dark minerals, rock fragments, trace feldspar, healed 45 degree fracture at 43.8', increased clay content at 43.2-44.0', moist to wet. 68% sand, 10% silt, 22% clay.
	No recovery for this interval.
CLAYEY SANDSTONE	Clayey Sandstone with some silt - yellowish gray (5Y7/2) to dark yellowish orange (10YR6/6) where iron stained, as described above.
CLAYEY SANDSTONE	Clayey Sandstone with some silt - interlaminated/bedded dark yellowish orange (10YR6/6) sand and medium light gray (N6) clay, very fine- to medium-grained, well sorted, sub-rounded to well rounded, approximately 10% porosity, argillaceous cement, highly friable, abundant frosted quartz, some iron stain, trace dark minerals/rock fragments, clear quartz, carbonaceous material throughout, ripple laminations at 49.5' (amplitude .03', wavelength .1') and 51.65' (amplitude .02', wavelength .17'), thin bed of gray sandy clay at 51.3-51.65', vertical de-watering structures at 51.8-52.1', moist. 45% sand, 12% silt, 43% clay.
	No recovery for this interval.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 57.0	GROUND ELEVATION (FT):	5947.03	PROJECT NUMBER:	OU2/RI
NORTH:	750055.58	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST:	2087602.73	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/09/92

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 14.6 FT. - 11.6 FT.

LOG OF BORING NUMBER: 20091

CHEMICAL SAMPLE
GRADATIONAL SA
DEPTH
SAMPLE NUMBER



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
CLAYEY SANDSTONE	Clayey Sandstone with some silt - interlaminated/bedded dark yellowish orange (10YR6/6) sand and medium light gray (N6) clay, as described above.
CLAYEY SANDSTONE	Clayey Sandstone with some silt - light gray (N7) to dark gray (N3), yellowish gray (5Y7/2) sand beds at 53.2-53.45', 53.9-54.0', very fine- to fine-grained, well sorted, rounded to well rounded, approximately 8% porosity, argillaceous cement, moderately friable, abundant frosted quartz, some dark minerals/rock fragments, trace clear quartz, mica, thinly laminated, cross-laminations dipping 30 degrees at 54.7-54.9', increased clay content at 55.0-55.3', moist. 47% sand, 11% silt, 42% clay.
	No recovery for this interval.
CLAYEY SANDSTONE	Clayey Sandstone with some silt - light gray (N7) to dark gray (N3), yellowish gray (5Y7/2) sand beds at 53.2-53.45', 53.9-54.0', as described above
	No recovery for this interval
	Total depth at 57.0 ft.

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 75.0	GROUND ELEVATION (FT): 5946.93	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:
NORTH: 750061.24	AREA: NE TRENCHES	CASING DIAMETER (IN): 2.0	GEOLOGIST: J.P. O'BRIEN	20191
EAST: 2087610.42	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 04/01/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 34.1 FT. - 30.9 FT. BACKFILL MATERIAL: BENTONITE 76.0 FT. - 59.0 FT.

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
						0				Top soil, start of boring at 0.90 ft.
				0.00 /0.90					SC:	Sandy Clay with some gravel - blackish red (5R2/2), maximum gravel diameter .07', average .04', fine- to coarse-grained sand, well graded, sub-angular to sub-rounded, low to medium plasticity, gravel is primarily caliche coated quartzite with some calcrete, sand contains abundant carbonaceous/organic material, quartz, some calcrete, rock fragments, feldspar, trace dark minerals, mica, no apparent bedding, moist. 23% gravel, 31% sand, 15% silt, 32% clay
					5946	1				
				0.40 /2.10	5945	2				No recovery for this interval.
					5944	3			SC/gc:	Clayey Sand with abundant gravel - very pale orange (10YR8/2) at 3.0-5.4', light brown (5YR6/4) at 5.4-9.4', light brown (5YR5/6) at 9.4-13.2', maximum gravel diameter > .25', average .13', fine- to coarse-grained sand, well graded, gravel is rounded or fractured, sand is angular to sub-rounded, low/medium plasticity, gravel is primarily quartzite with some gneiss at 7.8', 9.1-9.3' and 9.4-9.5', trace pale olive (10Y6/2) sandy clay clasts at 7.5' and 11.3', sand contains abundant quartz, some feldspar, rock fragments, increased calcrete and gravel at 3.0-5.4', physical appearance of sandy gravel, increased sand content at 9.4-11.4', dry. 32% gravel, 40% sand, 10% silt, 18% clay
				0.70 /2.00	5943	4				
					5942	5			SC/gc:	Clayey Sand with abundant gravel - very pale orange (10YR8/2) at 3.0-5.4', light brown (5YR6/4) at 5.4-9.4', light brown (5YR5/6) at 9.4-13.2', as described above.
										No recovery for this interval.
				0.40 /2.00	5941	6				
					5940	7			SC/gc:	Clayey Sand with abundant gravel - very pale orange (10YR8/2) at 3.0-5.4', light brown (5YR6/4) at 5.4-9.4', light brown (5YR5/6) at 9.4-13.2', as described above.
				1.20 /2.00	5939	8				
										No recovery for this interval.
					5938	9			SC/gc:	Clayey sand with abundant gravel - very pale orange (10YR8/2) at 3.0-5.4', light brown (5YR6/4) at 5.4-9.4', light brown (5YR5/6) at 9.4-13.2', as described above.
				0.70 /2.00	5937	10				No recovery for this interval.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 75.0	GROUND ELEVATION (FT):	5946.93	PROJECT NUMBER:	OU2/RI
NORTH:	750061.24	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST:	2087610.42	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/01/92

LOG OF BORING NUMBER: 20191

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 34.1 FT. - 30.9 FT. BACKFILL MATERIAL: BENTONITE 76.0 FT. - 59.0 FT.

CHEMICAL SAMPLE DEPTH
GRADATIONAL SAMPLE DEPTH
SAMPLE NUMBER

SAMPLE GRAIN SIZE: 0% 50% 100%

PERCENT RECOVERY: 0% 100%

RECOVERY/INTERVAL: 0.70 /2.00; 0.60 /2.00; 0.50 /2.00; 2.00 /2.00; 2.00 /2.00; 2.00 /2.00

DATUM (FT): 5936, 5935, 5934, 5933, 5932, 5931, 5930, 5929, 5928, 5927

DEPTH (FT): 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20

WELL OR PIEZOMETER CONSTRUCTION: 04/06/92

UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
SC/gc:	Clayey Sand with abundant gravel - very pale orange (10YR8/2) at 3.0-5.4', light brown (5YR6/4) at 5.4-9.4', light brown (5YR5/6) at 9.4-13.2', as described above
	No recovery for this interval
SC/gc:	Clayey Sand with abundant gravel - very pale orange (10YR8/2) at 3.0-5.4', light brown (5YR6/4) at 5.4-9.4', light brown (5YR5/6) at 9.4-13.2', as described above.
CL:	Sandy Clay with some silt - light brown (5YR5/6) to moderate brown (5YR4/4), as described below.
	No recovery for this interval
CL:	Sandy Clay with some silt - light brown (5YR5/6) to moderate brown (5YR4/4), maximum gravel diameter .07', average .02', fine- to medium-grained sand, poorly graded, sub-angular to rounded, medium to high plasticity, gravel is primarily quartzite with abundant deformed clasts of pale olive (10Y6/2) silty/sandy clay at 13.2-14.8', 25.5-25.8', sand contains abundant quartz, some feldspar, dark minerals, rock fragments, calcrete or kaolinized feldspar (does not effervese in HCl acid), trace mica (muscovite), carbonaceous material at 19.8-24.3', slightly moist. 4% gravel, 33% sand, 15% silt, 48% clay.

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 75.0	GROUND ELEVATION (FT): 5946.93	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:	
NORTH: 750061.24	AREA: NE TRENCHES	CASING DIAMETER (IN): 2.0	GEOLOGIST: J.P. O'BRIEN	20191	
EAST: 2087610.42	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 04/01/92		

REMARKS: HOLLOW-STEM AUGER BENTONITE SEAL 34.1 FT - 30.9 FT BACKFILL MATERIAL: BENTONITE 76.0 FT - 59.0 FT

CHEMICAL SAMPL
GRADATIONAL SA
SAMPLE NUMBER

SAMPLE GRAIN SIZE: 0% 50% 100%

PERCENT RECOVERY: 0% 100%

RECOVERY/INTERVAL: 2.00/2.00; 2.00/2.00; 2.00/2.00; 2.00/2.00; 2.00/2.00; 2.00/2.00; 0.90/2.00

DATUM (FT): 5926, 5925, 5924, 5923, 5922, 5921, 5920, 5919, 5918, 5917

DEPTH (FT): 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30

WELL OR PIEZOMETER CONSTRUCTION: 04/01/92

LITHOLOGY / UNIFIED SOILS CLASSIFICATION OR ROCK TYPE / DESCRIPTION

SC/gc: Gravelly Sand with abundant clay and some silt - light brown (5YR6/4), maximum gravel diameter .2', average .07', fine- to coarse-grained sand, well graded, angular to sub-rounded, medium plasticity, gravel is primarily quartzite with some weathered granite at 26.5' and light olive gray (5Y5/2), clay clast at 26.8', sand contains abundant quartz, some feldspar, rock fragments, iron stain, dark minerals, trace mica (muscovite), kaolinized feldspar, no apparent bedding, saturated
30% gravel, 34% sand, 10% silt, 26% clay

No recovery for this interval

SC/gc: Gravelly Sand with abundant clay and some silt - light brown (5YR6/4), as described above

CL: Sandy Clay with some gravel and silt - moderate yellowish brown (10YR5/4) to light olive gray (5Y6/1) at 29.6-30.1', maximum gravel diameter .16', average .02', fine- to coarse-grained sand, well graded, sub-angular to sub-rounded, medium plasticity, gravel is primarily quartzite with some granite at 30.2', sand contains abundant quartz, trace rock fragments, feldspar, dark minerals, mica, kaolinized feldspar,

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 75.0	GROUND ELEVATION (FT):	5946.93	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 750061.24	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	20191
EAST: 2087610.42	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/01/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 34.1 FT. - 30.9 FT. BACKFILL MATERIAL: BENTONITE 76.0 FT. - 59.0 FT.

CHEMICAL SAMPLE
GRADATIONAL SA
SAMPLE NUMBER
DEPTH

SAMPLE GRAIN SIZE: 0% 50% 100%

PERCENT RECOVERY: 0% 100%

RECOVERY/INTERVAL: 0.80 /2.00; 2.00 /2.00; 1.50 /2.00; 2.00 /2.00; 2.00 /2.00; 2.00 /2.00; 2.00 /2.00

DATUM (FT): 5916, 5915, 5914, 5913, 5912, 5911, 5910, 5909, 5908, 5907

DEPTH (FT): 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40

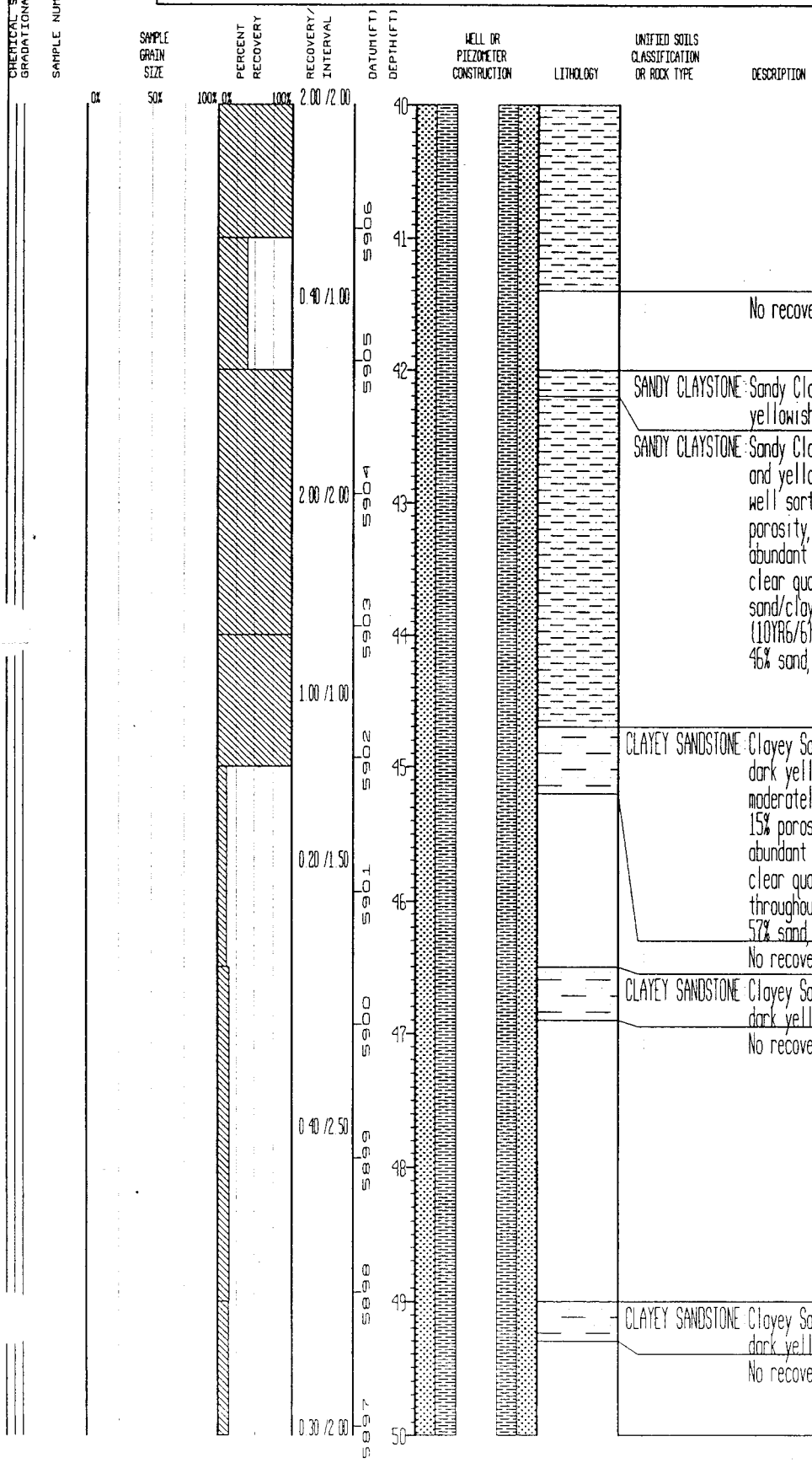
WELL OR PIEZOMETER CONSTRUCTION

LITHOLOGY

UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	limonite/iron stain, thin bed of dark yellowish orange (10YR6/6) iron stained sand at 30.1-30.3', faintly laminated carbonaceous material at 29.6-30.1', saturated. 12% gravel, 32% sand, 12% silt, 44% clay.
GC	Sandy Gravel with abundant clay and some silt - moderate brown (5YR4/4), maximum gravel diameter .21', average .07', fine- to coarse-grained sand, well graded, angular to rounded, medium to low plasticity, gravel is primarily quartzite with some light olive gray (5Y6/1), bedrock rip-up clasts throughout, sand contains abundant quartz, some rock fragments, feldspar, dark minerals, trace mica, kaolinized feldspar, bedrock contact is sharp - scoured undulating surface with amplitude of >= .04, wavelength > .2', saturated. 41% gravel, 27% sand, 7% silt, 26% clay.
	No recovery for this interval
GC	Sandy Gravel with abundant clay and some silt - moderate brown (5YR4/4), as described above. Top of bedrock at 33.05 ft.
CLAYSTONE	Claystone with some sand - light olive gray (5Y5/2) to yellowish gray (5Y7/2), very fine- to fine-grained, well sorted, sub-rounded, approximately 6% porosity, argillaceous cement, slightly friable, abundant quartz, trace dark minerals, mica, iron stain, mottled with trace carbonaceous material, stringers of dark yellowish orange (10YR6/6) iron stain at 33.05-36.0', thinly bedded to moderately laminated at 36.0-37.0', increased sand content at 37.0-37.7', dry to slightly moist. 13% sand, 5% silt, 82% clay.
	No recovery for this interval.
CLAYSTONE	Claystone with some sand - light olive gray (5Y5/2) to yellowish gray (5Y7/2), as described above
SANDY CLAYSTONE	Sandy Claystone with some silt - light olive gray (5Y5/2) to yellowish gray (5Y7/2), very fine- to fine-grained, well sorted, sub-rounded to well rounded, approximately 10% porosity, argillaceous cement, moderately friable, abundant frosted quartz, some dark minerals, feldspar, trace rock fragments, mottled to thinly/thickly laminated clay/sand, iron stain at 37.8-37.9', 39.5-40.4', flame and dewatering structures at 40.0-40.4', increased sand content at 40.1-41.0', slightly moist. 33% sand, 10% silt, 57% clay.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 75.0	GROUND ELEVATION (FT):	5946.93	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	750061.24	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	20191
EAST:	2087610.42	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/01/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 34.1 FT. - 30.9 FT. BACKFILL MATERIAL: BENTONITE 76.0 FT. - 59.0 FT.

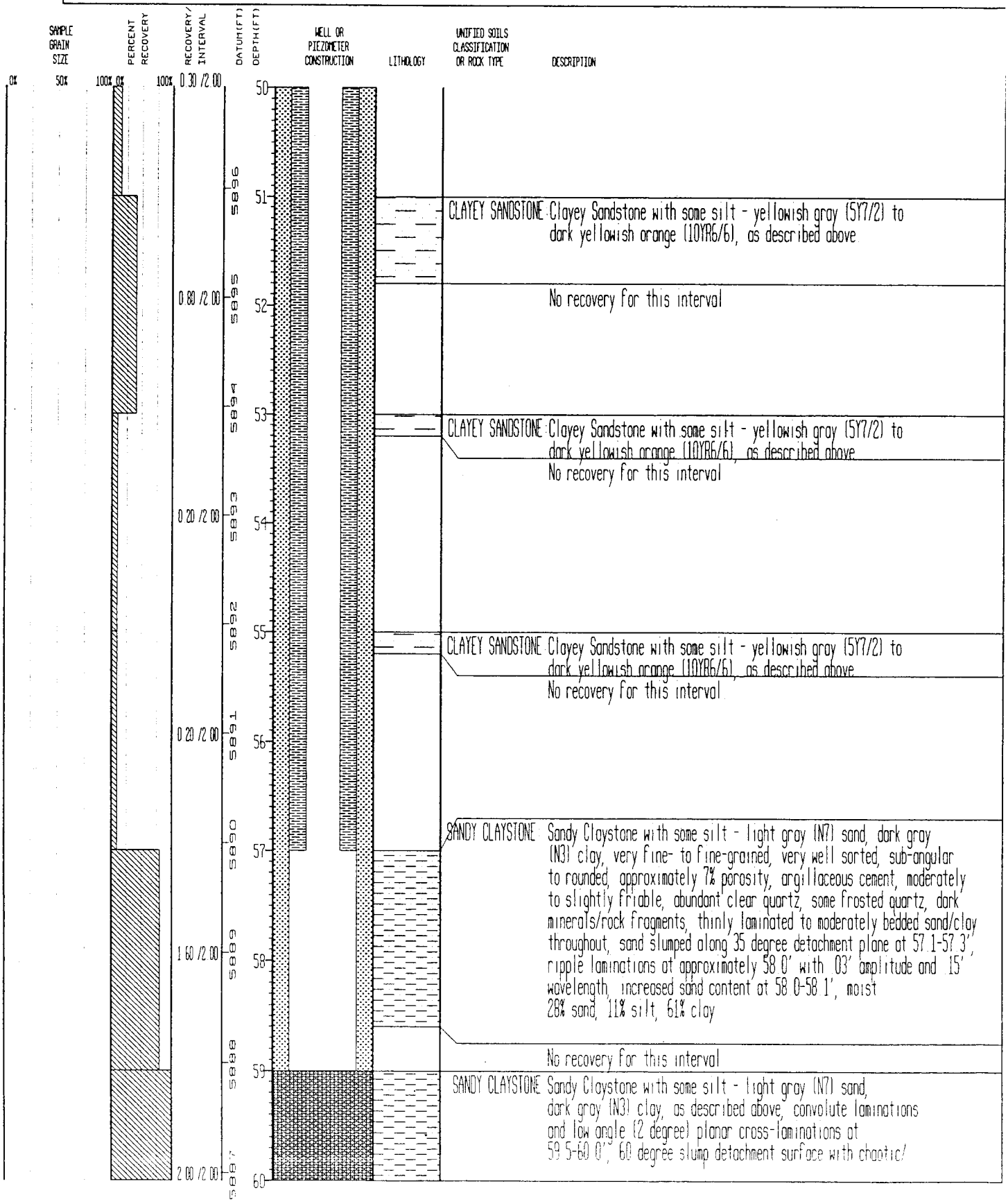


UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	No recovery for this interval.
SANDY CLAYSTONE	Sandy Claystone with some silt - light olive gray (5Y5/2) to yellowish gray (5Y7/2), as described above.
SANDY CLAYSTONE	Sandy Claystone with some silt - medium dark gray (N4) clay and yellowish gray (5Y7/2) sand, very fine- to fine-grained, well sorted, sub-rounded to well rounded, approximately 12% porosity, argillaceous cement, moderately to highly friable, abundant frosted quartz, some dark minerals, feldspar, trace clear quartz, rock fragments, iron stain, interbedded to interlaminated sand/clay at intervals of approximately .05', dark yellowish orange (10YR6/6) iron stained sand at 42.7-43.0', 44.5-44.7', moist. 46% sand, 6% silt, 48% clay.
CLAYEY SANDSTONE	Clayey Sandstone with some silt - yellowish gray (5Y7/2) to dark yellowish orange (10YR6/6), very fine- to medium-grained, moderately sorted, rounded to well-rounded, approximately 15% porosity, argillaceous cement, moderately friable, abundant frosted quartz, some dark minerals, feldspar, trace clear quartz, rock fragments, iron stain, iron staining throughout interval, slightly moist to moist. 57% sand, 17% silt, 26% clay.
	No recovery for this interval.
CLAYEY SANDSTONE	Clayey Sandstone with some silt - yellowish gray (5Y7/2) to dark yellowish orange (10YR6/6), as described above.
	No recovery for this interval.
CLAYEY SANDSTONE	Clayey Sandstone with some silt - yellowish gray (5Y7/2) to dark yellowish orange (10YR6/6), as described above.
	No recovery for this interval.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 75.0	GROUND ELEVATION (FT):	5946.93	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	750061.24	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	20191
EAST:	2087610.42	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/01/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 34.1 FT. - 30.9 FT. BACKFILL MATERIAL: BENTONITE 76.0 FT. - 59.0 FT.

CHEMICAL SAMPL
GRADATIONAL SA
SAMPLE NUMBER
DEPTH



STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 75.0	GROUND ELEVATION (FT):	5946.93	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	750061.24	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	20191
EAST:	2087610.42	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/01/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 34.1 FT. - 30.9 FT. BACKFILL MATERIAL: BENTONITE 76.0 FT. - 59.0 FT.

CHEMICAL SAMPL
GRADATIONAL SA
SAMPLE NUMBER
DEPTH

SAMPLE GRAIN SIZE: 0% 50% 100%

PERCENT RECOVERY: 0% 100%

RECOVERY/INTERVAL: 2.00 /2.00; 2.00 /2.00; 1.10 /2.00; 1.80 /2.00; 1.70 /2.00; 1.00 /2.00

DATUM (FT): 5886, 5885, 5884, 5883, 5882, 5881, 5880, 5879, 5878, 5877

DEPTH (FT): 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70

WELL OR PIEZOMETER CONSTRUCTION

LITHOLOGY

UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	disturbed bedding above and below detachment surface at 60.6', sandstone rip-up clasts at 61.3', increased sand content at 59.1-59.2', increased clay content at 63.0-63.8'.
	No recovery for this interval.
SANDY CLAYSTONE	Sandy Claystone with some silt - light gray (N7) sand, dark gray (N3) clay, as described above, 20 degree surface (channel or slump surface) filled with discordent lamination bedding at 66.1', chaotic laminations with multiple rotational detachments (.05' offset) at 66.2-66.4'.
	No recovery for this interval.
SANDY CLAYSTONE	Sandy Claystone with some silt - light gray (N7) sand, dark gray (N3) clay, as described above, clay with sand clast rip-ups at 67.0-67.9'.
	No recovery for this interval.
SANDY CLAYSTONE	Sandy Claystone with some silt - light gray (N7) sand, dark gray (N7) clay, as described above, laminations inclined at 25° degrees at 69.3', increased sand content at 68.5-69.1'.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 75.0	GROUND ELEVATION (FT):	5946.93	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	750061.24	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	20191
EAST:	2087610.42	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/01/92	

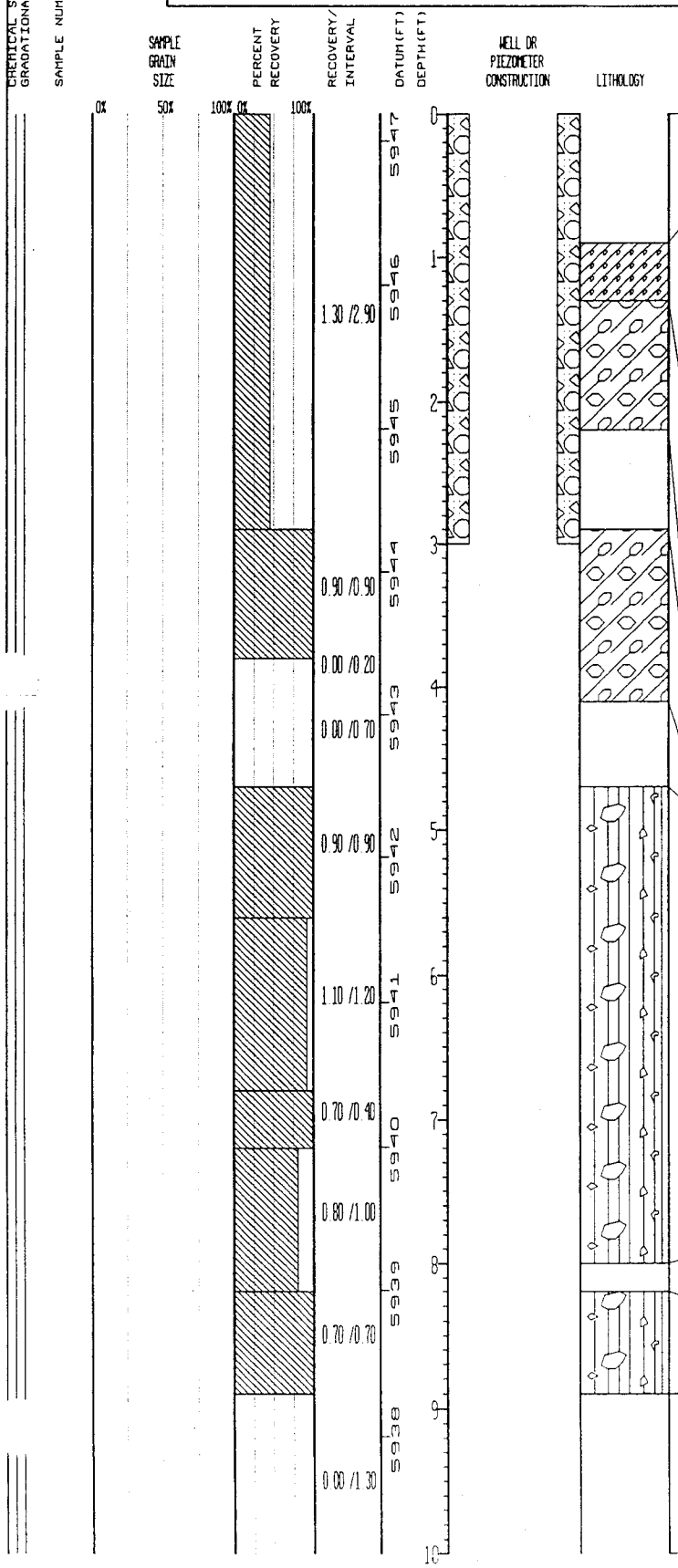
REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 34.1 FT. - 30.9 FT. BACKFILL MATERIAL: BENTONITE 76.0 FT. - 59.0 FT.

CHEMICAL SAMPL
GRADATIONAL SA
DEPTH
SAMPLE NUMBER

SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
0% 50%	100% 0%	100% 1.00 /2.00		70				No recovery for this interval.
			5876	71			SANDY CLAYSTONE	Sandy Claystone with some silt - light gray (N7) sand, dark gray (N3) clay, as described above, 40 degree slump or microfault surface at 71.5', increased sand content at 71.3-71.45'.
		0.90 /2.00	5875	72				No recovery for this interval.
			5874	73			SANDY CLAYSTONE	Sandy Claystone with some silt - light gray (N7) sand, dark gray (N3) clay, as described above, sand load casts at 73.05', convolute laminations and rip-up clasts at 73.1-73.5', increased sand content at 73.9-74.2'.
		2.00 /2.00	5873	74				
			5872	75				Total depth at 75.0 ft.
			5871	76				
			5870	77				
			5869	78				
			5868	79				
			5867	80				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 35.6	GROUND ELEVATION (FT):	5947.19	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	750052.41	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	20291
EAST:	2087612.42	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/09/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 16.0 FT. - 13.0 FT

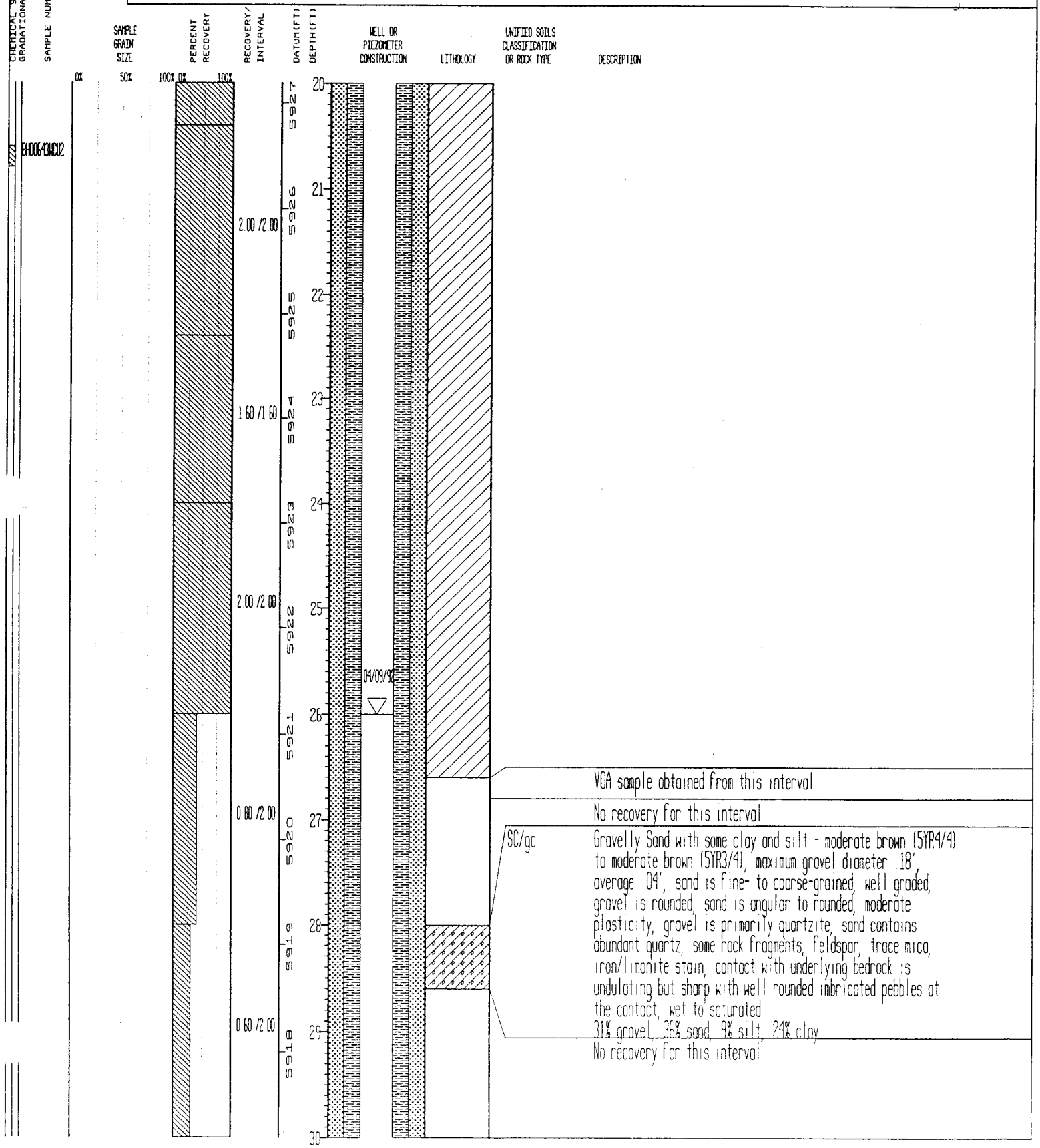


UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	Top soil, start of boring at 0.90 ft.
SC	Clayey Sand with some silt and gravel - grayish brown (5YR3/2), maximum gravel diameter .15', average .07', fine- to medium-grained, poorly graded, sub-rounded to sub-angular, low to medium plasticity, gravel is primarily quartzite and calcrete, sand contains abundant carbonaceous/organic material, calcrete/caliche, quartz, some rock fragments, feldspar, trace mica, no apparent bedding, moist to wet. 10% gravel, 42% sand, 20% silt, 28% clay
GC	Clayey Gravel with some sand and silt - very pale orange (10YR6/2) to pale yellowish brown (10YR6/2), maximum gravel diameter > .25', average .1', fine- to coarse-grained sand, well graded, sub-rounded, moderate plasticity, gravel is primarily quartzite coated with caliche or iron stain at 3.1', sand contains abundant calcrete/caliche, quartz, some rock fragments, feldspar, trace dark minerals, mica, paleosoil horizon at 1.7', moist to wet. 32% gravel, 24% sand, 7% silt, 37% clay
	No recovery for this interval.
GC	Clayey Gravel with some sand and silt - very pale orange (10YR8/2) to pale yellowish brown (10YR6/2), as described above.
	No recovery for this interval.
GM	Sandy Gravel with some silt and clay - light brown (5YR5/6) to moderate brown (5YR4/4), maximum gravel diameter > .25', average .09', fine- to coarse-grained sand, well graded, sub-angular to sub-rounded, low plasticity, gravel is primarily quartzite, sand contains abundant quartz, some rock fragments, feldspar, dark minerals, iron stain, trace biotite, muscovite, increased sand content at 6.0-6.5', 14.0-15.1', dry to moist. 59% gravel, 19% sand, 15% silt, 7% clay.
	No recovery for this interval.
GM	Sandy Gravel with some silt and clay - light brown (5YR5/6) to moderate brown (5YR4/4), as described above.
	No recovery for this interval.

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 35.6	GROUND ELEVATION (FT): 5947.19	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:	
NORTH: 750052.41	AREA: NE TRENCHES	CASING DIAMETER (IN): 2.0	GEOLOGIST: J.P. O'BRIEN	20291	
EAST: 2087612.42	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 04/09/92		
REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 16.0 FT. - 13.0 FT.					

DEPTH	CHEMICAL SAMPL. GRADATIONAL SA.	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
10			0% 50% 100%	0% 100%	1.00 /1.00	5937			GM	Sandy Gravel with some silt and clay - light brown (5YR5/6) to moderate brown (5YR4/4), as described above.
11					0.90 /0.90	5936				
12					0.00 /1.50	5935				No recovery for this interval.
13						5934				
14					1.00 /1.00	5933			GM	Sandy Gravel with some silt and clay - light brown (5YR5/6) to moderate brown (5YR4/4), as described above.
15					1.80 /2.20	5932			CL	Sandy Clay with some silt - light brown (5YR5/6) to moderate brown (5YR4/4), maximum and average gravel diameter .02', sand is fine- to medium-grained, poorly graded, gravel is rounded, sand is sub-rounded to sub-angular, gravel is primarily quartzite, sand contains abundant quartz, some rock fragments, calcrete, feldspar, trace mica, pale olive (10Y6/2) sandy clay rip-up clasts throughout, carbonaceous material at 17.8-18.5', 19.9-20.4', 23.1-23.6', 26.5', rounded .07'x.02' iron coated clay rip-up clast at 19.5', increased sand content at 20.4-21.2', thickly laminated at 21.5-22.4', moist at 15.1-26.0', wet to saturated at 26.0-28.0'. 1% gravel, 42% sand, 12% silt, 45% clay
16						5931	04/10/92 ▽			No recovery for this interval.
17					1.60 /1.70	5930			CL	Sandy Clay with some silt - light brown (5YR5/6) to moderate brown (5YR4/4), as described above.
18						5929				
19					2.00 /1.90	5928				
20										

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 35.6	GROUND ELEVATION (FT): 5947.19	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER:	
NORTH: 750052.41	AREA: NE TRENCHES	CASING DIAMETER (IN): 2.0	GEOLOGIST: J.P. O'BRIEN	20291	
EAST: 2087612.42	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 04/09/92		
REMARKS: HOLLOW-STEM AUGER BENTONITE SEAL 16.0 FT - 13.0 FT					



STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 35.6	GROUND ELEVATION (FT):	5947.19	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 750052.41	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	20291
EAST: 2087612.42	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/09/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 16.0 FT. - 13.0 FT.

CHEMICAL SAMPLE / GRADATIONAL SA.	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%	1.00 /1.00	5917	30			SC/gc	Gravelly Sand with some clay and silt - moderate brown (5YR4/4) to moderate brown (5YR3/4), as described above. Top of bedrock at 33.1 ft.
				2.00 /2.00	5916	31				
					5915	32				
					5914	33			CLAYSTONE	Claystone with some silt and sand - dusky yellow (5Y6/4), very fine- to fine-grained, sub-angular to sub-rounded, approximately 4% porosity, argillaceous cement, slightly friable, abundant quartz, trace dark minerals, mottled with carbonaceous material throughout, heavily iron stained dark yellowish orange (10YR6/6) bed at 34.0', thin laminea of clay dipping 20 degrees at 35.0', iron nodule at 35.1', wet 7% sand, 10% silt, 83% clay.
				2.60 /2.60	5913	34				
					5912	35				
	BH006-15WC02									VOA sample obtained from this interval.
					5911	36				Total depth at 35.6 ft
					5910	37				
					5909	38				
					5908	39				
						40				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 76.6	GROUND ELEVATION (FT):	5946.96	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER:
NORTH: 750050.76	AREA: NE TRENCHES	CASING DIAMETER (IN):		GEOLOGIST:	J.P. O'BRIEN	20391
EAST: 2087606.17	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	04/08/92	

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 41.6 FT - 76.0 FT.

CHEMICAL SAMPL / GRADATIONAL SA.	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%							Top soil, start of boring at 0.90 ft.
				0.70 /3.00	5946	0 1			SC	Clayey Sand with abundant gravel and some silt - grayish brown (5YR3/2), maximum gravel diameter .21', average .07', fine- to coarse-grained sand, well graded, angular, low to medium plasticity, gravel is primarily caliche coated quartzite and calcrete, sand contains abundant quartz, calcret/caliche, some organic/carbonaceous material, rock fragments, no apparent bedding, slightly moist. 28% gravel, 34% sand, 8% silt, 30% clay.
					5945	2			GC	Sandy Gravel with some clay and silt - very pale orange (10YR8/2) to grayish orange (10YR7/4), as described below.
										No recovery for this interval
				1.00 /2.00	5944 5943	3 4			GC	Sandy Gravel with some clay and silt - very pale orange (10YR8/2) to grayish orange (10YR7/4), maximum gravel diameter .2', average .14', sand is fine- to coarse-grained, well graded, angular to sub-rounded, low plasticity, gravel is primarily quartzite, sand contains abundant calcrete/caliche, quartz, some rock fragments, feldspar, trace limonite stain, muscovite, no apparent bedding, slightly moist to dry. 53% gravel, 21% sand, 9% silt, 17% clay.
										No recovery for this interval.
				0.70 /2.00	5942 5941	5 6			GC	Sandy Gravel with some clay and silt - light brown (5YR6/4) to light brown (5YR5/6), maximum gravel diameter > .25', average .09', sand is fine- to coarse-grained, well graded, angular to sub-rounded, low plasticity, gravel is primarily quartzite, sand contains abundant quartz, some rock fragments, feldspar, trace dark minerals, iron/limonite stain, mica, no apparent bedding, dry. 42% gravel, 25% sand, 12% silt, 21% clay.
										No recovery for this interval
					5940	7			GC	Sandy Gravel with some clay and silt - light brown (5YR6/4) to light brown (5YR5/6), as described above
				0.80 /2.00	5939	8				No recovery for this interval
					5938	9			GC	Sandy Gravel with some clay and silt - light brown (5YR6/4) to light brown (5YR5/6), as described above
				1.20 /2.00	5937	10				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 76.6	GROUND ELEVATION (FT): 5946.96	PROJECT NUMBER: OU2RI	LOG OF BORING NUMBER:
NORTH: 750050.76	AREA: NE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: J.P. O'BRIEN	20391
EAST: 2087606.17	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 04/08/92	

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 41.6 FT. - 76.0 FT.

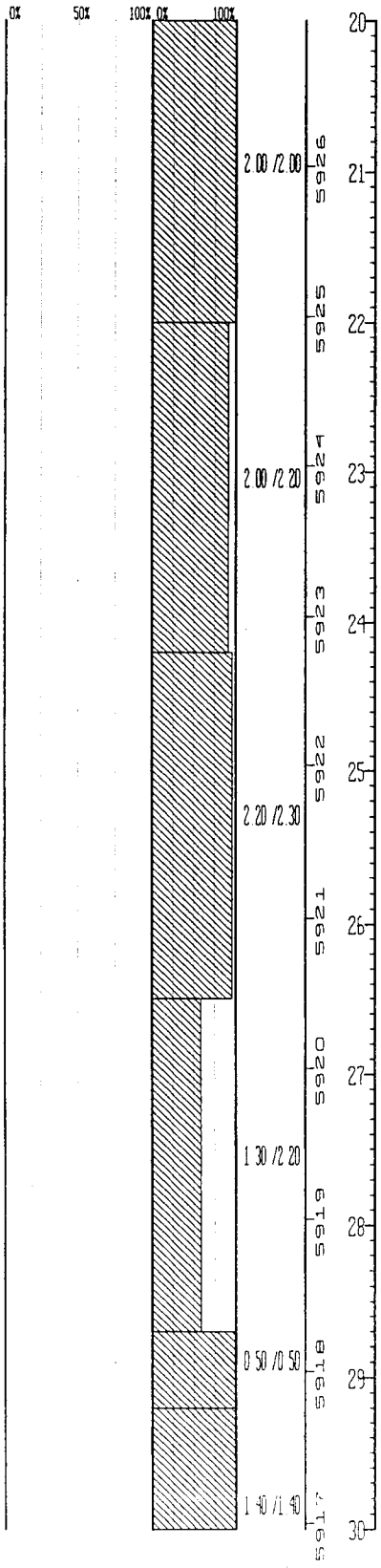
DEPTH	CHEMICAL SAMPL GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			0% 50%	100% 0%	100% 1.20 /2.00		10				No recovery for this interval
						5936	11			GC	Sandy Gravel wiht some clay and silt - light brown (5YR6/4) to light brown (5YR5/6), as described above.
					0.20 /2.00	5935	12				No recovery for this interval
						5934	13			GC	Sandy Gravel with some clay and silt - light brown (5YR6/4) to light brown (5YR5/6), as described above.
					0.60 /1.00	5933	14				No recovery for this interval
										GC	Sandy Gravel with some clay and silt - light brown (5YR6/4) to light brown (5YR5/6), as described above.
					1.30 /2.00	5932	15				No recovery for this interval
						5931	16			GC	Sandy Gravel with some clay and silt - light brown (5YR6/4) to light brown (5YR5/6), as described above.
					0.40 /2.00	5930	17				No recovery for this interval
						5929	18			CL	Silty Clay with some sand - light brown (5YR5/6), maximum and average gravel diameter .02', fine- to medium-grained sand, poorly graded, gravel is rounded, sand is angular to sub-rounded, medium plasticity, gravel is primarily quartzite, sand contains abundant quartz, some rock fragments, kaolinized feldspar, feldspar, dark minerals, mica, carbonaceous material throughout, especially heavy at 21.1', thinly laminated to thinly bedded, moist. Perched water zone at 22.0-22.1', saturated. 2% gravel, 8% sand, 23% silt, 67% clay
					2.00 /2.00	5928	19				
						5927	20				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 76.6	GROUND ELEVATION (FT):	5946.96	PROJECT NUMBER:	OU2RI
NORTH: 750050.76	AREA: NE TRENCHES	CASING DIAMETER (IN):		GEOLOGIST:	J.P. O'BRIEN
EAST: 2087606.17	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	04/08/92

LOG OF BORING NUMBER: 20391

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 41.6 FT. - 76.0 FT.

CHEMICAL SAMPLE
GRADATIONAL SAMPLE
DEPTH
SAMPLE NUMBER



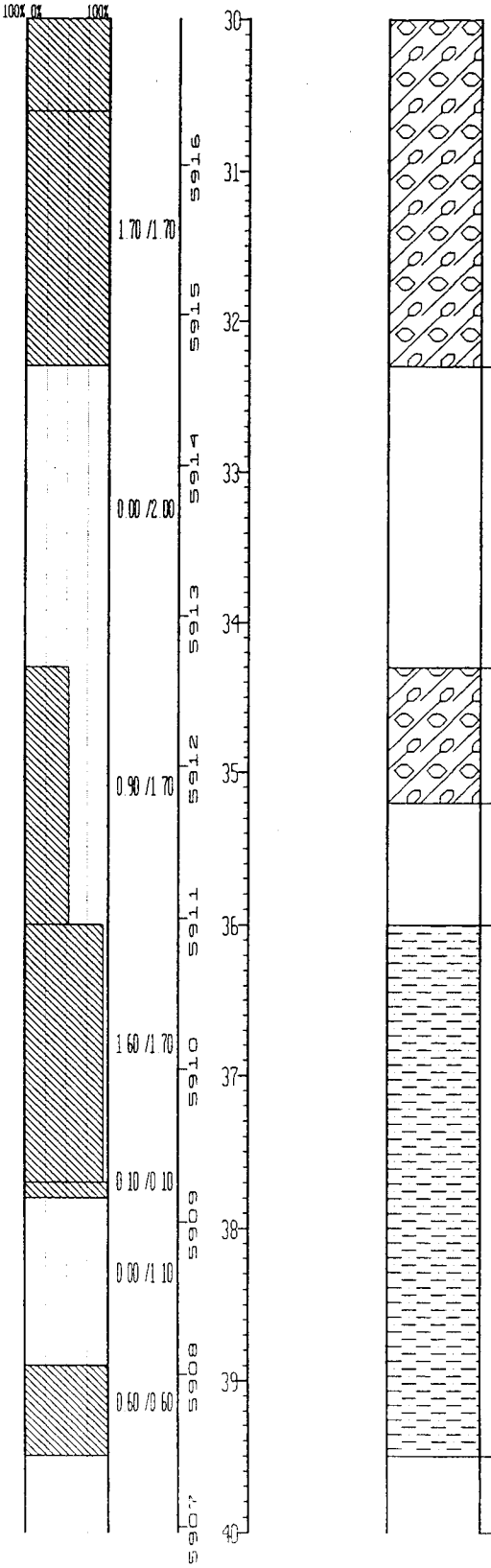
UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	No recovery for this interval
CL	Silty Clay with some sand - light brown (5YR5/6), as described above
CL	Sandy Clay with some silt - moderate brown (5YR4/4), maximum gravel diameter .23' at 28.8', average .03', fine- to medium-grained sand, poorly graded, sub-angular to rounded, medium plasticity, gravel is primarily quartzite with some pale olive (10Y6/2) sandy clay rip-up clasts at 27.5-28.0', and trace weathered granite, sand contains abundant quartz, some rock fragments, kaolinized feldspar, feldspar, mica, trace dark minerals, carbonaceous material throughout, very moist to saturated 2% gravel, 35% sand, 13% silt, 50% clay
GC	Sandy Gravel with some clay and silt - light brown (5Y5/6) to moderate brown (5YR3/4), maximum gravel diameter > .25', average .12', sand is fine- to coarse-grained, well graded, gravel is rounded to well rounded, sand is angular to sub-rounded, low plasticity, gravel is primarily quartzite with some weathered

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 76.6	GROUND ELEVATION (FT):	5946.96	PROJECT NUMBER:	OU2RI
NORTH:	750050.76	AREA: NE TRENCHES	CASING DIAMETER (IN):		GEOLOGIST:	J.P. O'BRIEN
EAST:	2087606.17	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	04/08/92

LOG OF BORING NUMBER: 20391

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 41.6 FT - 76.0 FT.

CHEMICAL SAMPLE / GRADATIONAL SAMPLE / DEPTH / SAMPLE NUMBER / SAMPLE GRAIN SIZE (0% 50% 100%) / PERCENT RECOVERY (0% 100%) / RECOVERY/INTERVAL / DATUM (FT) / DEPTH (FT) / WELL OR PIEZOMETER CONSTRUCTION / LITHOLOGY / UNIFIED SOILS CLASSIFICATION OR ROCK TYPE / DESCRIPTION



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	granite at 30.2', and trace very friable weathered dark mafic igneous rock fragment (2'x.2') at 31.8', sand contains abundant quartz, some rock fragments, feldspar, trace dark minerals, kaolinized feldspar, mica, increased sand content and no gravel at 29.7-29.9', 30.6-32.0', pale olive (10Y6/2), sandy clay rip-up clasts at 32.1-36.0', contact with underlying bedrock is sharp with pebbles loaded into claystone, claystone rip-up clasts .06'x.04' along contact, saturated. 49% gravel, 24% sand, 11% silt, 16% clay
	No recovery for this interval
GC	Sandy Gravel with some clay and silt - light brown (5Y5/6) to moderate brown (5YR3/4), as described above
	No recovery for this interval Top of bedrock at 36.0 ft
SANDY CLAYSTONE	Sandy Claystone with some silt - grayish yellow (5Y8/4) to yellowish gray (5Y7/2), very fine- to fine-grained, very well sorted, sub-rounded to rounded, approximately 11% porosity, argillaceous cement, moderately to slightly friable, abundant frosted quartz, trace dark minerals, iron stain, thinly laminated, few very thin beds, iron staining, throughout, dry. 22% sand, 6% silt, 72% clay
	No recovery for this interval

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 76.6	GROUND ELEVATION (FT):	5946.96	PROJECT NUMBER:	OU2RI
NORTH: 750050.76	AREA: NE TRENCHES	CASING DIAMETER (IN):		GEOLOGIST:	J.P. O'BRIEN
EAST: 2087606.17	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	04/08/92

LOG OF BORING NUMBER: 20391

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 41.6 FT. - 76.0 FT.

CHEMICAL SAMPLE	GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					0.00 /3.50	5906	41				
						5905	42				
						5904	43				
					0.00 /2.00	5903	44				
						5902	45			CLAYEY SANDSTONE	Clayey Sandstone with some silt - dusky yellow (5Y6/4), maximum gravel diameter fine- granule- and pebble gravel (sluff, see rig geologist's log), sand is fine- to very fine-grained, very poorly sorted, sand is angular to well rounded, approximately 20% porosity, argillaceous cement, highly friable, sand contains abundant frosted quartz, some rock fragments, trace dark minerals, kaolinized feldspar, iron/limonite stain, clear quartz, carbonaceous material, conglomerate at 45.1-45.5', and 49.4-49.6', drilling sluff thinly laminated at 49.7-50.4', trace convolute laminations, dry. 1% gravel, 57% sand, 7% silt, 35% clay. Note: Coarse material gravel is from Alluvium above, core barrel was tipped out and hole dry cored at 45.0-49.4'
					0.60 /2.30	5901	46				
						5900	47				
					0.00 /2.10	5899	48				
						5898	49				
					0.50 /0.50	5897	50				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 76.6	GROUND ELEVATION (FT):	5946.96	PROJECT NUMBER:	OU2RI	LOG OF BORING NUMBER
NORTH: 750050.76	AREA: NE TRENCHES	CASING DIAMETER (IN):		GEOLOGIST:	J.P. O'BRIEN	20391
EAST: 2087606.17	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	04/08/92	

REMARKS: HOLLOW-STEM AUGER BACKFILL MATERIAL: BENTONITE 41.6 FT - 76.0 FT

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
0%		50%	100% 0% 100%	0.50 /0.50	5896	50				No recovery for this interval at 50.4-74.0'. This interval was reamed as per instructions from: Robert Smith, Connie Dodge, Eric Dille
					5895	51				
					5894	52				
					5893	53				
					5892	54				
					5891	55				
					5890	56				
					5889	57				
					5888	58				
					5887	59				
						60				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 76.6	GROUND ELEVATION (FT):	5946.96	PROJECT NUMBER:	OU2RI
NORTH: 750050.76	AREA: NE TRENCHES	CASING DIAMETER (IN):		GEOLOGIST:	J.P. O'BRIEN
EAST: 2087606.17	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN):	6.5	DATE DRILLED:	04/08/92

LOG OF BORING NUMBER

20391

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 41.6 FT - 76.0 FT.

CHEMICAL SAMPLE
GRADATIONAL SA
DEPTH
SAMPLE NUMBER

SAMPLE GRAIN SIZE (0% 50% 100%)

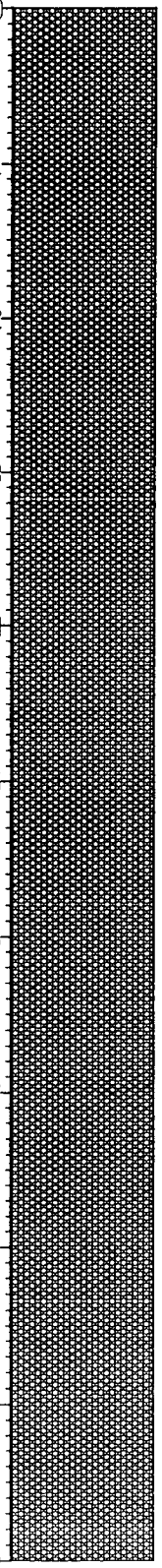
PERCENT RECOVERY (0% 100%)

RECOVERY/INTERVAL

DATUM (FT) | DEPTH (FT)

5886 | 60
5885 | 61
5884 | 62
5883 | 63
5882 | 64
5881 | 65
5880 | 66
5879 | 67
5878 | 68
5877 | 69
70

WELL OR PIEZOMETER CONSTRUCTION



LITHOLOGY

UNIFIED SOILS CLASSIFICATION OR ROCK TYPE

DESCRIPTION

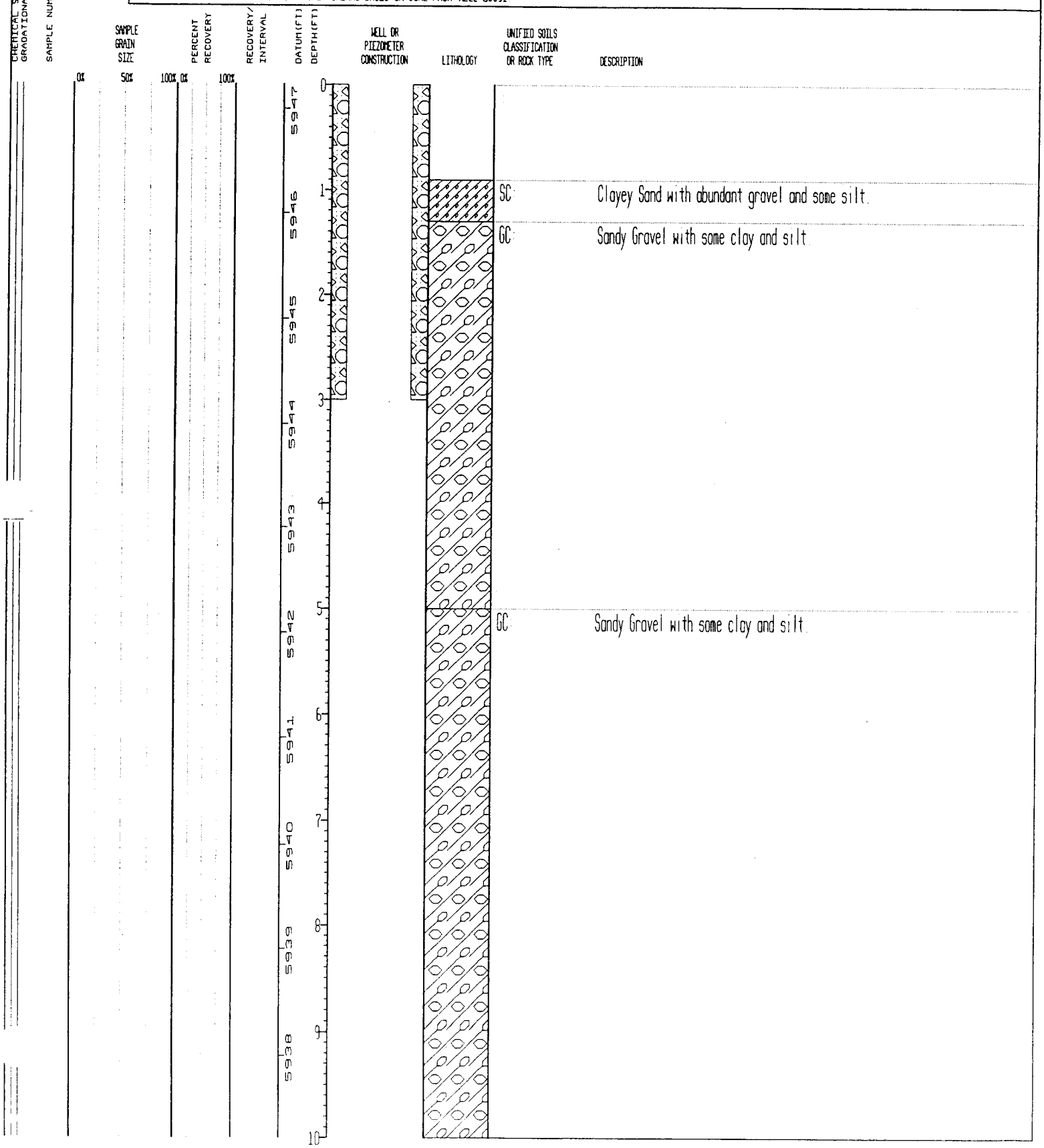
STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 76.6	GROUND ELEVATION (FT): 5946.96	PROJECT NUMBER: OU2RI	LOG OF BORING NUMBER:	
NORTH: 750050.76	AREA: NE TRENCHES	CASING DIAMETER (IN):	GEOLOGIST: J.P. O'BRIEN	20391	
EAST: 2087606.17	LOCATOR NUMBER: I14	BOREHOLE DIAMETER (IN): 6.5	DATE DRILLED: 04/08/92		

REMARKS: HOLLOW-STEM AUGER. BACKFILL MATERIAL: BENTONITE 41.6 FT. - 76.0 FT.

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					5876	70				
					5875	71				
					5874	72				
					5873	73				
					5872	74			SANDY CLAYSTONE	Sandy Claystone with some silt - medium gray (N5) to dark gray (N3), very fine-grained, very well sorted, sub-angular to rounded, approximately 9% porosity, argillaceous cement, moderately to slightly friable, abundant frosted quartz, some dark minerals, thinly laminated to thinly bedded, dry. 31% sand, 14% silt, 55% clay.
					5871	75				No recovery for this interval.
					5870	76			SANDY CLAYSTONE	Sandy Claystone with some silt - medium gray (N5) to dark gray (N3), as described above.
					5869	77				Total depth at 76.6 ft.
					5868	78				
					5867	79				
						80				

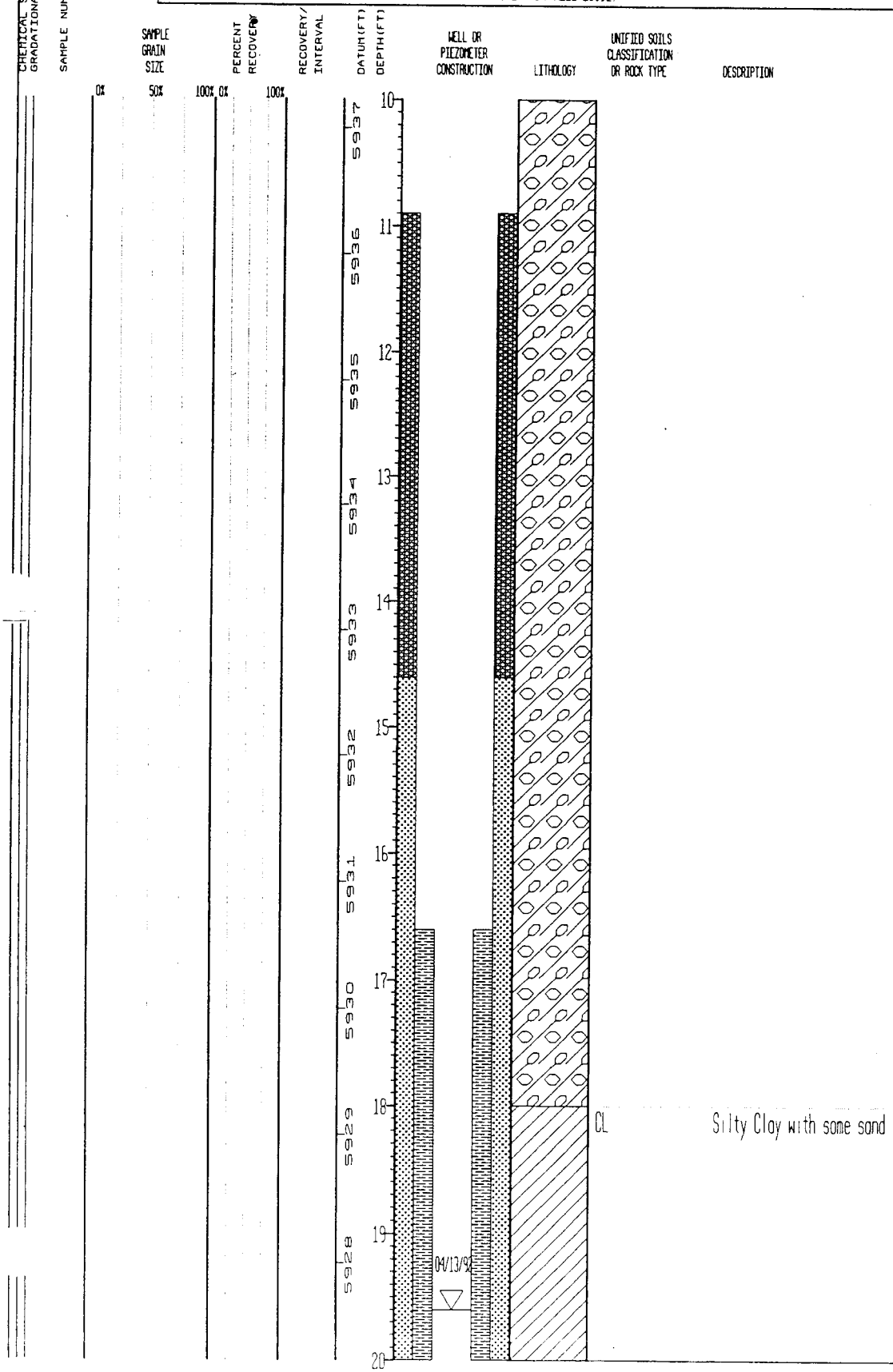
STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 32.9	GROUND ELEVATION (FT):	5947.23	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	750050.57	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	20491
EAST:	2087600.79	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/10/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 14.6 FT. - 10.9 FT.
WELL 20491 WAS REAMED. UNIT BREAKS BASED ON CORE FROM WELL 20391



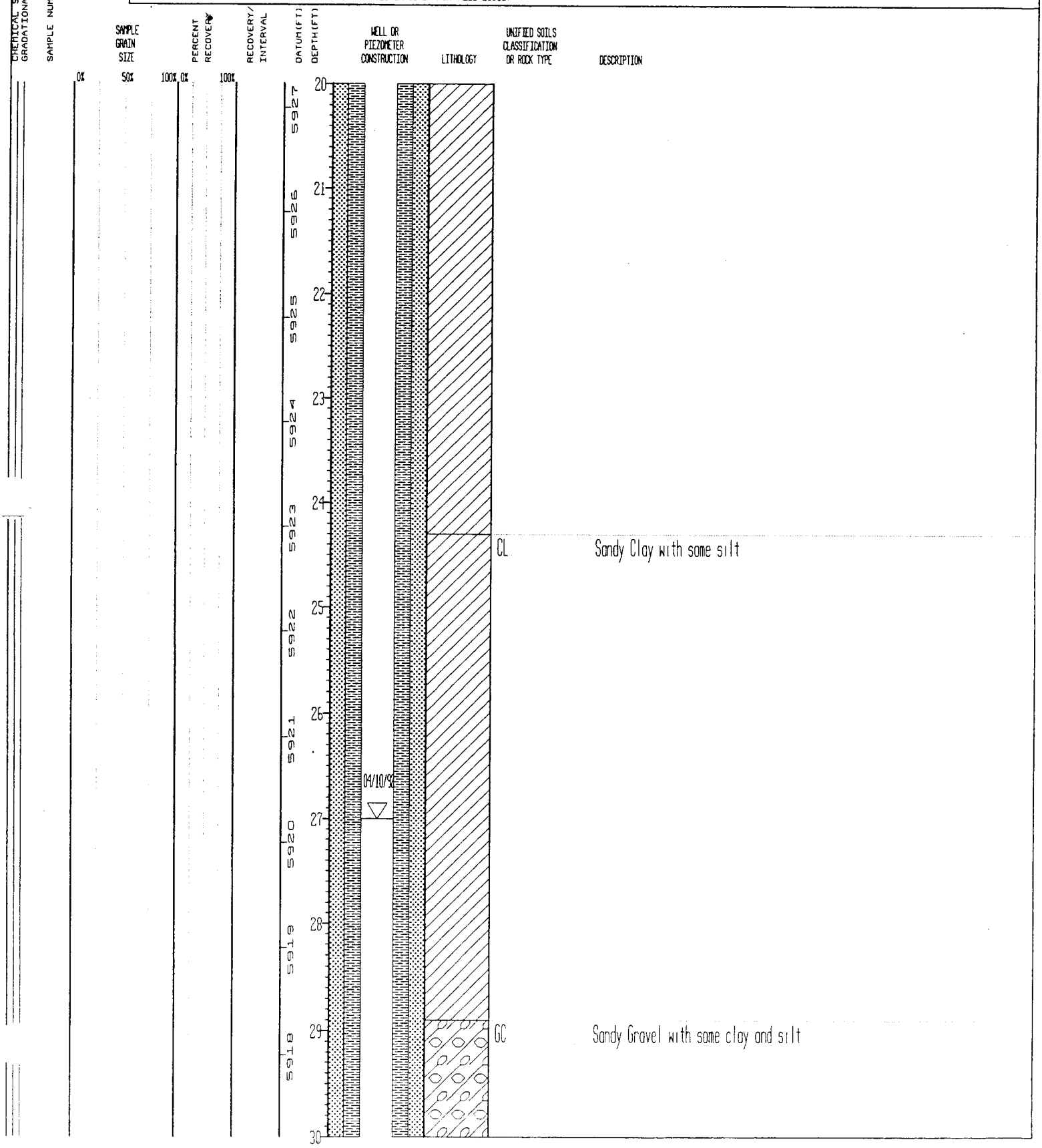
STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 32.9	GROUND ELEVATION (FT):	5947.23	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	750050.57	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	20491
EAST:	2087600.79	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/10/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 14.6 FT. - 10.9 FT.
WELL 20491 WAS REAMED. UNIT BREAKS BASED ON CORE FROM WELL 20391.



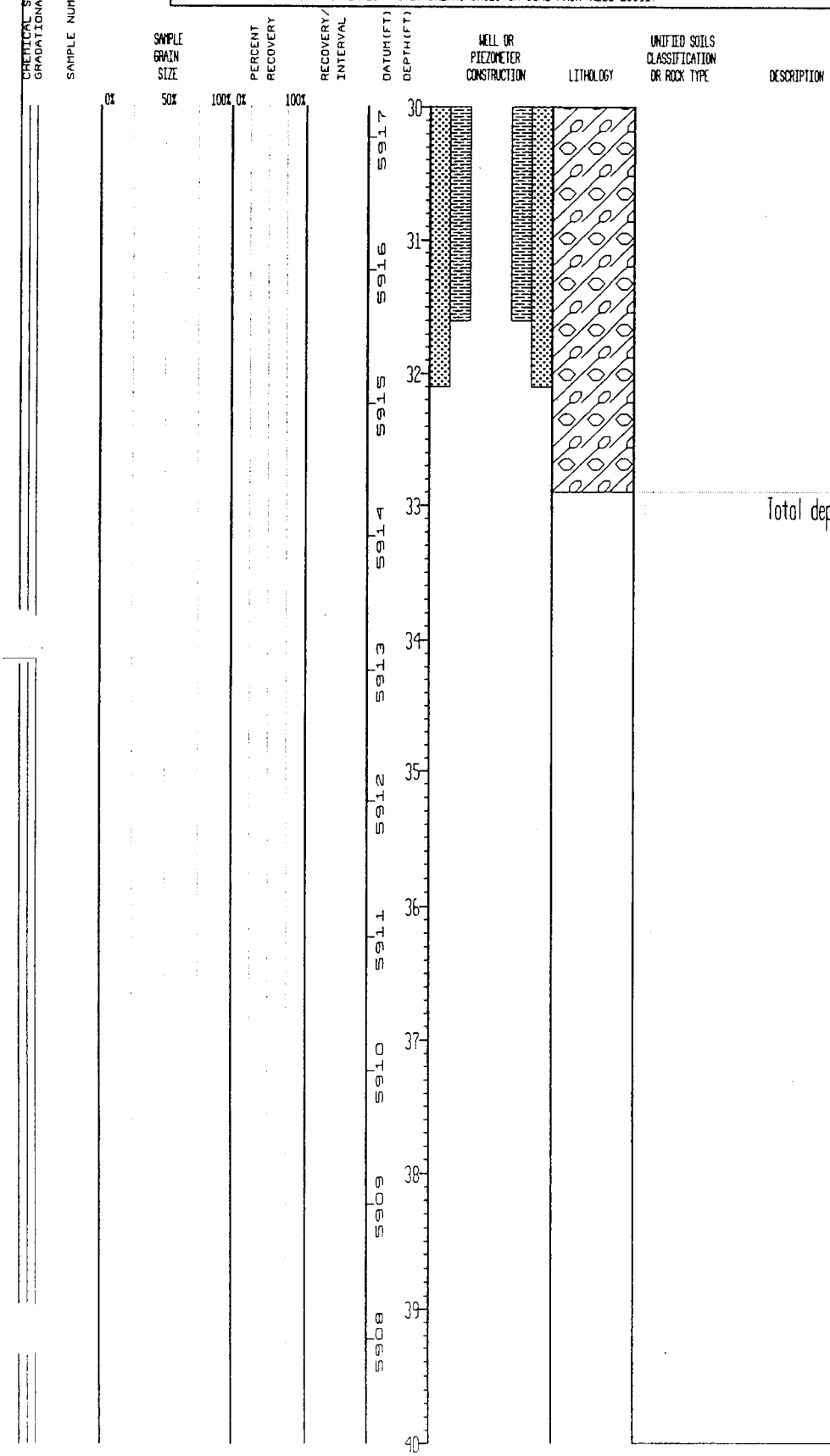
STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 32.9	GROUND ELEVATION (FT):	5947.23	PROJECT NUMBER:	002/RI	LOG OF BORING NUMBER:
NORTH:	750050.57	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	20491
EAST:	2087600.79	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/10/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 14.6 FT. - 10.9 FT.
WELL 20491 WAS REAMED. UNIT BREAKS BASED ON CORE FROM WELL 20391



STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 32.9	GROUND ELEVATION (FT):	5947.23	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	750050.57	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	20491
EAST:	2087600.79	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/10/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 14.6 FT. - 10.9 FT.
WELL 20491 WAS REAMED. UNIT BREAKS BASED ON CORE FROM WELL 20391.

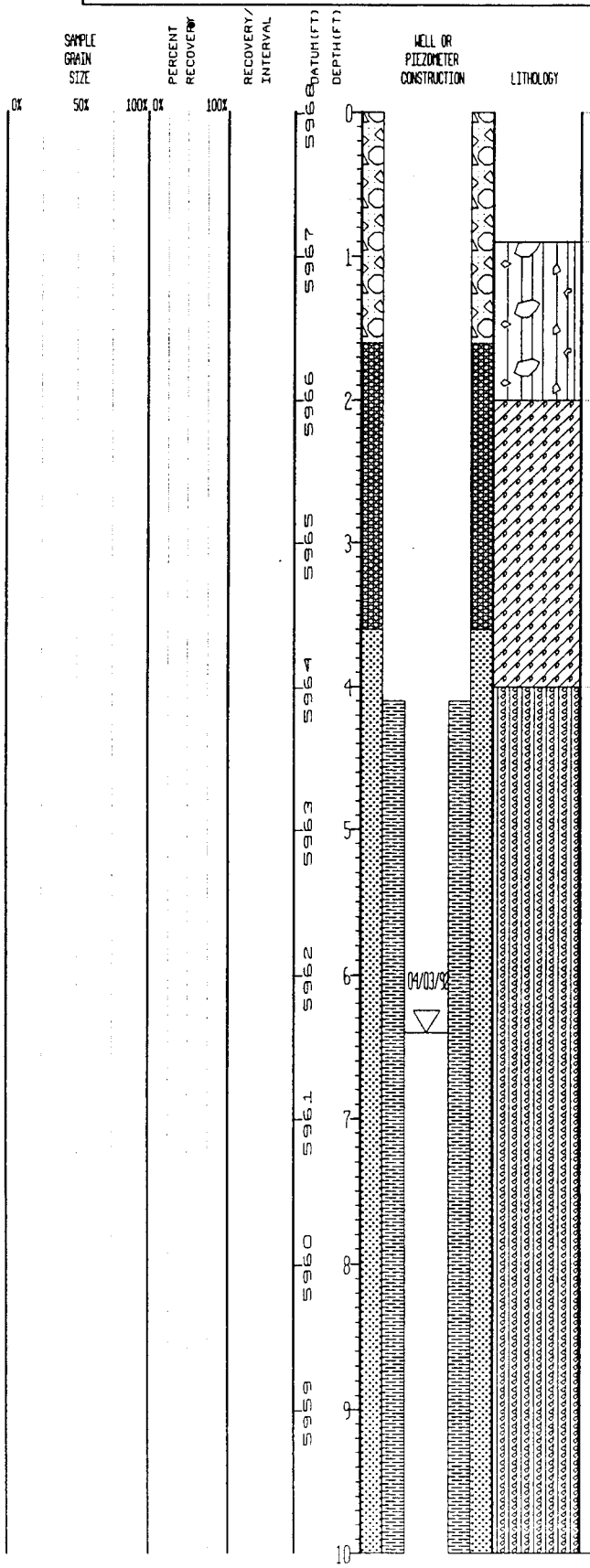


Total depth at 32.9 ft.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 24.6	GROUND ELEVATION (FT):	5968.01	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749404.73	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	20591
EAST:	2086316.41	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/02/92	

REMARKS: HOLLOW-STEM AUGER BENTONITE SEAL 3.6 FT. - 0.0 FT.
WELL 20591 WAS REAMED. UNIT BREAKS BASED ON CORE FROM WELL 20791.

CHEMICAL SAMPL
GRADATIONAL SA
SAMPLE NUMBER
DEPTH



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
GM	Sandy Gravel with some silt
SC	Gravelly Sand with abundant clay/clayey sand with abundant gravel
SM/gm	Gravelly Sand with some silt and clay

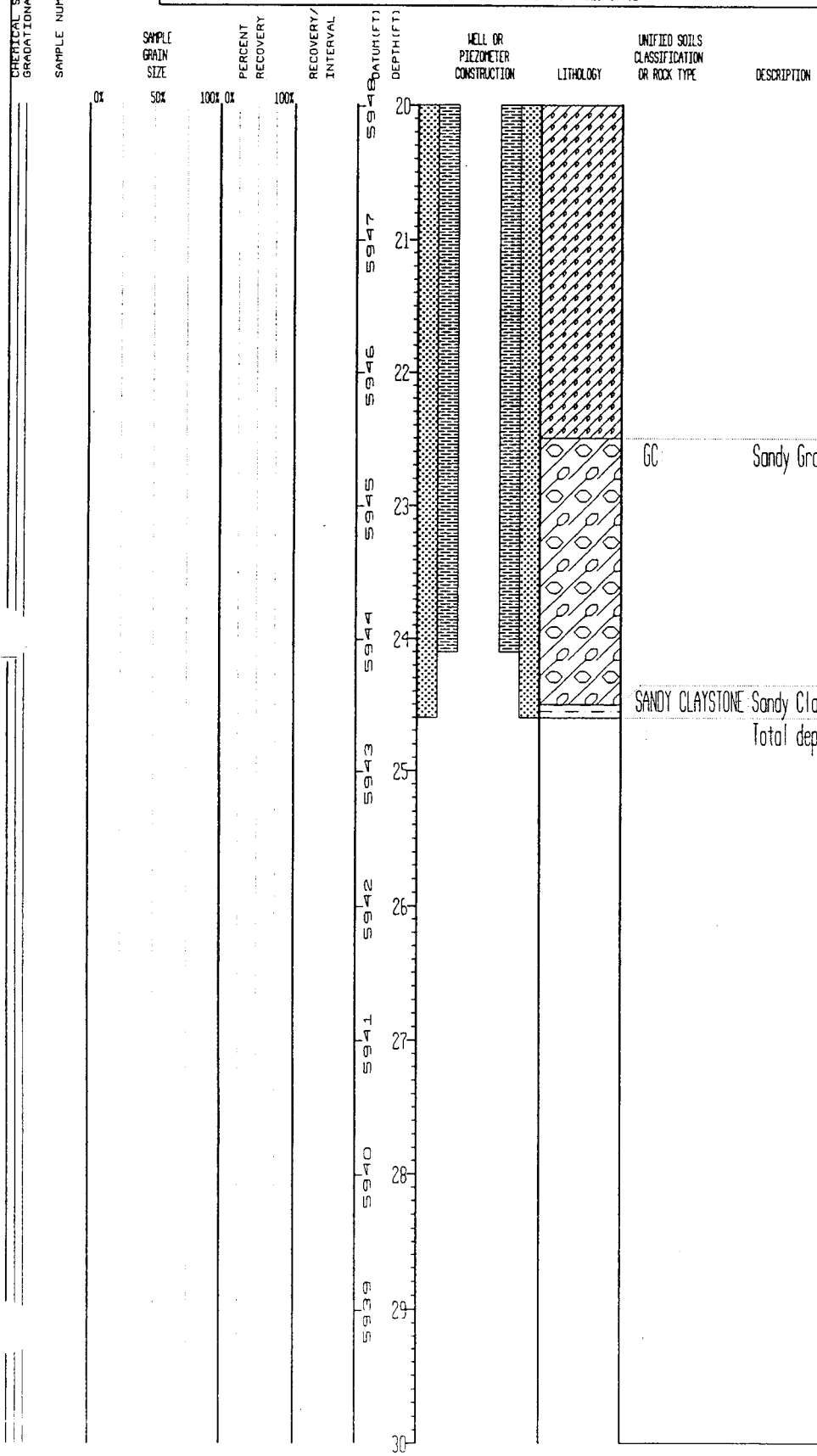
STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 24.6	GROUND ELEVATION (FT):	5968.01	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749404.73	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	20591
EAST:	2086316.41	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/02/92	

REMARKS: HOLLOW-STEM AUGER BENTONITE SEAL 3.6 FT. - 0.0 FT.
WELL 20591 WAS REAMED. UNIT BREAKS BASED ON CORE FROM WELL 20791.

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%		5958	10			SC	Gravelly Sand with some clay and silt.
					5957	11				
					5956	12				
					5955	13				
					5954	14				
					5953	15				
					5952	16	04/02/92			
					5951	17				
					5950	18				
					5949	19				
						20				

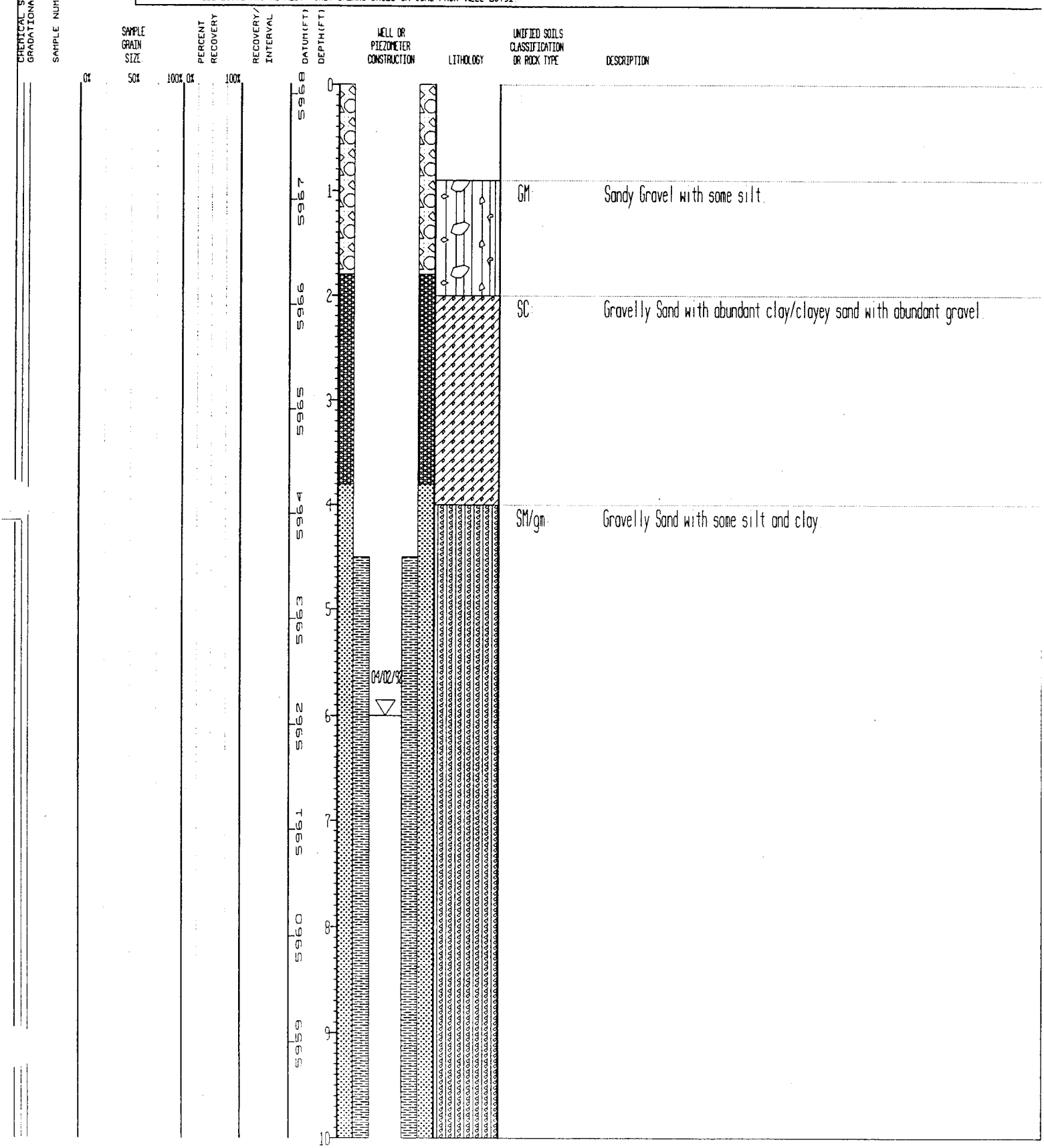
STATE PLANE COORDINATE		TOTAL DEPTH (FT): 24.6	GROUND ELEVATION (FT):	5968.01	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749404.73	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	20591
EAST:	2086316.41	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/02/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 3.6 FT. - 0.0 FT.
WELL 20591 WAS REAMED. UNIT BREAKS BASED ON CORE FROM WELL 20791



STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 25.8	GROUND ELEVATION (FT):	5968.09	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749410.51	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	20691
EAST:	2086317.24	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/01/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 3.8 FT. - 0.0 FT. BACKFILL MATERIAL: BENTONITE 25.8 FT. - 25.0 FT.
WELL 20691 WAS REAMED. UNIT BREAKS BASED ON CORE FROM WELL 20791.



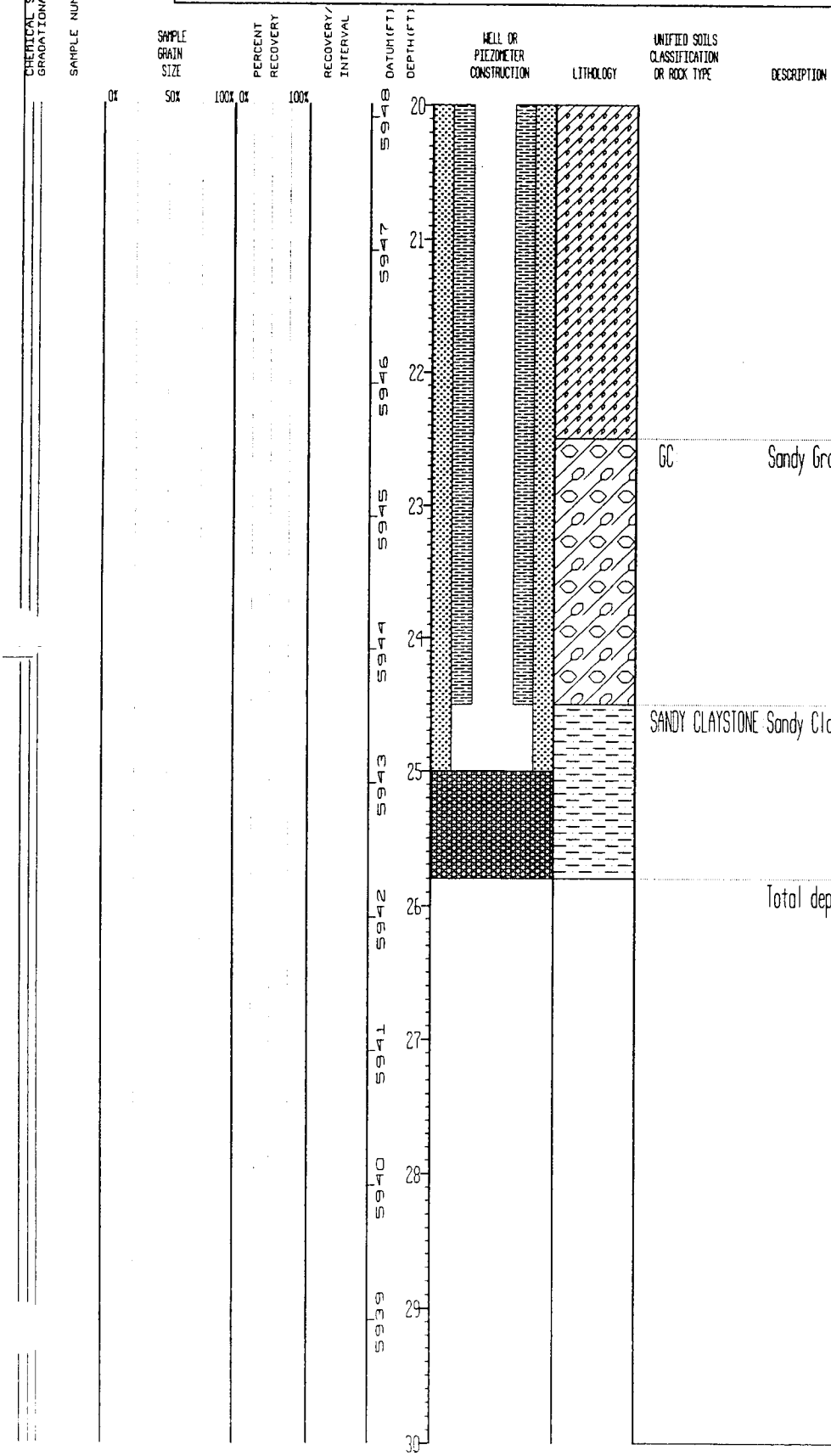
STATE PLANE COORDINATE	TOTAL DEPTH (FT): 25.8	GROUND ELEVATION (FT): 5968.09	PROJECT NUMBER: 002/RI	LOG OF BORING NUMBER:	
NORTH: 749410.51	AREA: NE TRENCHES	CASING DIAMETER (IN): 2.0	GEOLOGIST: J.P. O'BRIEN	20691	
EAST: 2086317.24	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 04/01/92		

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 3.8 FT. - 0.0 FT. BACKFILL MATERIAL: BENTONITE 25.8 FT. - 25.0 FT.
WELL 20691 WAS REAMED. UNIT BREAKS BASED ON CORE FROM WELL 20791.

CHEMICAL SAMPL / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%		5958	10			SC	Gravelly Sand with some clay and silt
					5957	11				
					5956	12				
					5955	13				
					5954	14	04/01/92			
					5953	15				
					5952	16				
					5951	17				
					5950	18				
					5949	19				
						20				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 25.8	GROUND ELEVATION (FT):	5968.09	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER
NORTH:	749410.51	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	20691
EAST:	2086317.24	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/01/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 3.8 FT. - 0.0 FT. BACKFILL MATERIAL: BENTONITE 25.8 FT. - 25.0 FT.
WELL 20691 WAS REAMED. UNIT BREAKS BASED ON CORE FROM WELL 20791.

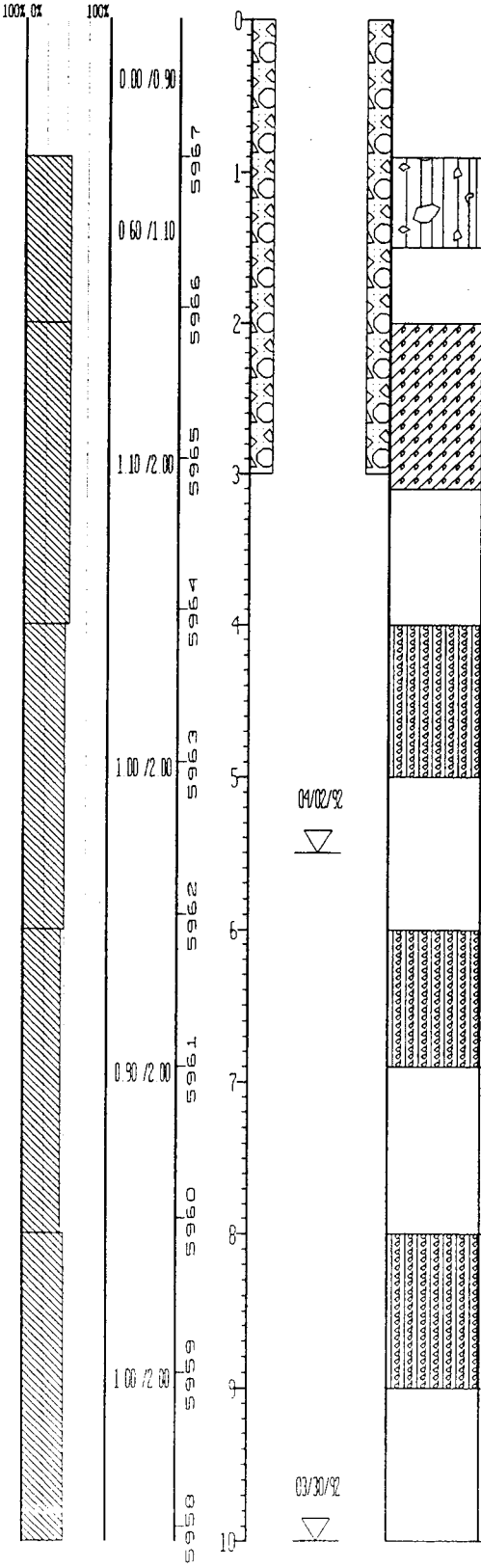


UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
GC	Sandy Gravel with some clay and silt
SANDY CLAYSTONE	Sandy Claystone
	Total depth at 25.8 ft

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 36.5	GROUND ELEVATION (FT):	5967.90	PROJECT NUMBER	OU2/RI	LOG OF BORING NUMBER
NORTH: 749416.04	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	20791
EAST: 2086317.61	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/31/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 28.7 FT. - 23.6 FT. BACKFILL MATERIAL: BENTONITE 37.9 FT. - 36.5 FT.

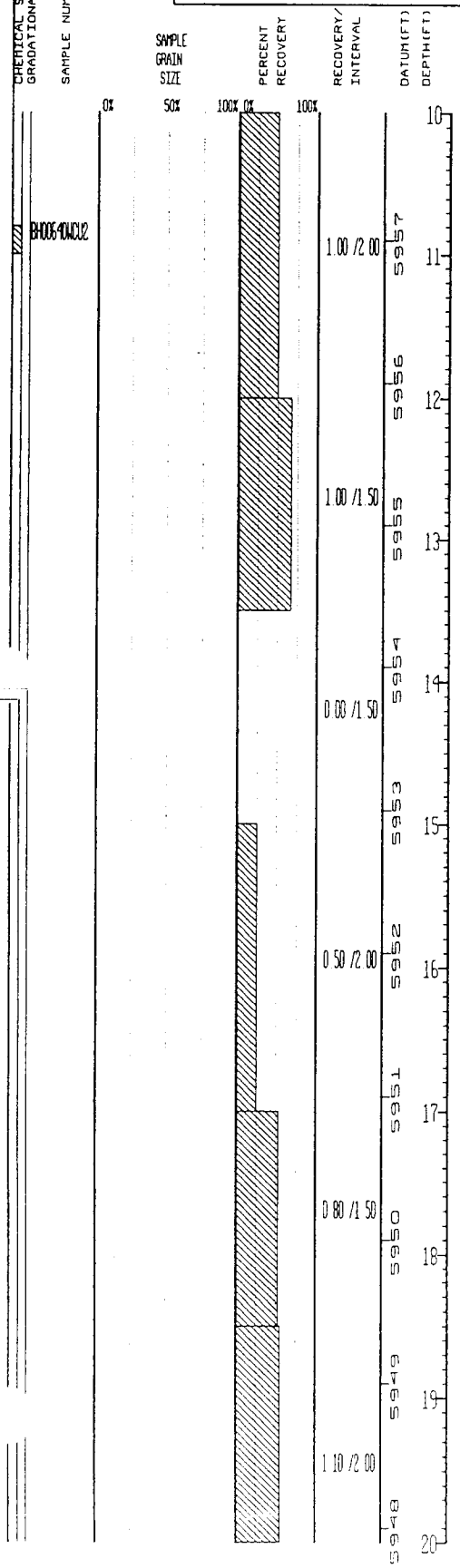
CHEMICAL SAMPLE / GRADATIONAL SA. / DEPTH / SAMPLE NUMBER / SAMPLE GRAIN SIZE (0% 50% 100%) / PERCENT RECOVERY (0% 100%) / RECOVERY/INTERVAL / DATUM (FT) / DEPTH (FT) / WELL OR PIEZOMETER CONSTRUCTION / LITHOLOGY / UNIFIED SOILS CLASSIFICATION OR ROCK TYPE / DESCRIPTION



	Top soil, start of boring at 0.90 ft.
GM:	Sandy Gravel with some silt - grayish brown (5YR3/2), maximum gravel diameter .18', average .1', fine- to coarse-grained sand, well graded, gravel is sub-rounded, sand is angular to sub-rounded, low plasticity, gravel is primarily quartzite, sand contains abundant carbonaceous/organic material, quartz, some rock fragments, feldspar, trace volcanic rock fragments, mica, no apparent bedding, moist. 57% gravel, 29% sand, 10% silt, 4% clay.
	No recovery for this interval.
SC:	Gravelly Sand with abundant clay/Clayey Sand with abundant gravel - very pale orange (10YR8/2) to light brown (5YR6/4), maximum gravel diameter .18', average .08', fine- to coarse-grained sand, well graded, angular to sub-rounded, medium plasticity, gravel is primarily caliche coated quartzite with trace arkosic arenite, sand contains abundant calcrete/caliche, quartz, some rock fragments, no apparent bedding, moist. 26% gravel, 43% sand, 5% silt, 26% clay.
	No recovery for this interval.
SM/gm:	Gravelly Sand with some silt and clay - light brown (5YR5/6), maximum gravel diameter > .25', average .13', fine- to coarse-grained sand, well graded, gravel is rounded, sand is angular to sub-rounded, low plasticity, gravel is primarily quartzite with trace weathered granite at 4.9' and weathered arkosic arenite at 8.9', sand contains abundant quartz, iron stain, some rock fragments, feldspar, trace dark minerals, biotite, muscovite, no apparent bedding, physical appearance of sandy gravel, moist. 33% gravel, 42% sand, 16% silt, 9% clay.
	No recovery for this interval.
SM/gm:	Gravelly Sand with some silt and clay - light brown (5YR5/6), as described above.
	No recovery for this interval.
SM/gm:	Gravelly Sand with some silt and clay - light brown (5YR5/6), as described above.
	No recovery for this interval.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 36.5	GROUND ELEVATION (FT):	5967.90	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749416.04	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	20791
EAST:	2086317.61	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/31/92	

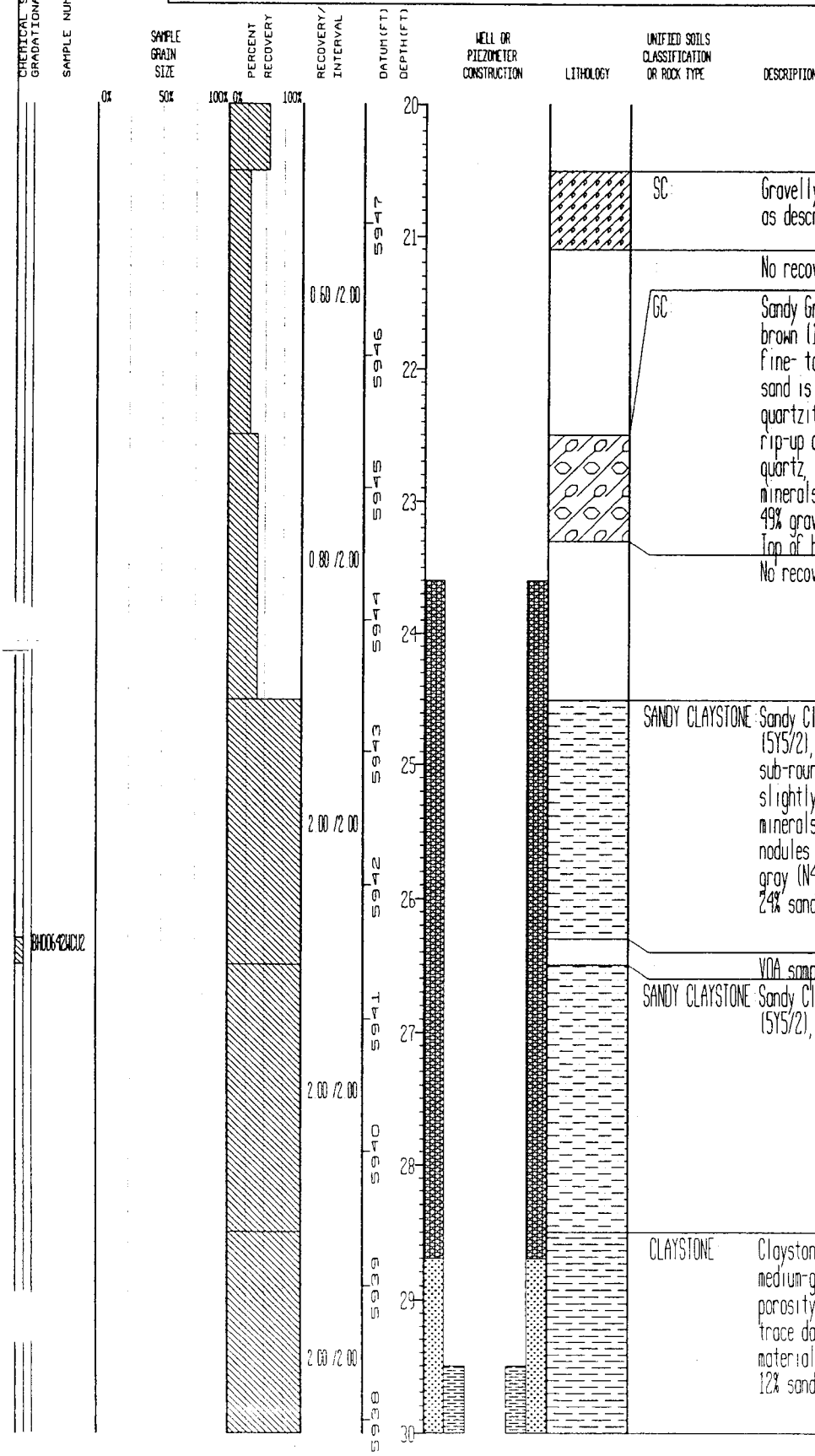
REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 28.7 FT. - 23.6 FT. BACKFILL MATERIAL: BENTONITE 37.9 FT. - 36.5 FT.



LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	SC	Gravelly Sand with some clay and silt - moderate brown (5YR4/4), as described below.
		VOA sample obtained from this interval.
		No recovery for this interval.
	SC	Gravelly Sand with some clay and silt - moderate brown (5YR4/4), maximum gravel diameter .23', average .18', fine- to coarse-grained sand, well graded, angular to sub-rounded, low plasticity, gravel is primarily quartzite with trace arkosic arenite at 10.9' and 17.5', sand contains abundant quartz, some rock fragments, iron stain, dark minerals, mica, trace calcrete/caliche (kaolinized feldspar?), dark blotches of carbonaceous material? product?, increased sand content at 18.5-19.1' and 20.5-21.1', no apparent bedding, wet to saturated. 27% gravel, 46% sand, 12% silt, 15% clay.
		No recovery for this interval
	SC	Gravelly Sand with some clay and silt - moderate brown (5YR4/4), as described above.
		No recovery for this interval
	SC	Gravelly Sand with some clay and silt - moderate brown (5YR4/4), as described above.
		No recovery for this interval
	SC	Gravelly Sand with some clay and silt - moderate brown (5YR4/4), as described above.
		No recovery for this interval

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 36.5	GROUND ELEVATION (FT):	5967.90	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 749416.04	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	20791
EAST: 2086317.61	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/31/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 28.7 FT. - 23.6 FT. BACKFILL MATERIAL: BENTONITE 37.9 FT. - 36.5 FT.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
SC:	Gravelly Sand with some clay and silt - moderate brown (5YR4/4), as described above
	No recovery for this interval
GC:	Sandy Gravel with some clay and silt - moderate yellowish brown (10YR5/4), maximum gravel diameter .16', average .06', fine- to coarse-grained sand, well graded, gravel is rounded, sand is angular to sub-rounded, low plasticity, gravel is primarily quartzite, some yellowish gray (5Y7/2) silty clay clasts (bedrock rip-up clast), arkosic arenite, granite, sand contains abundant quartz, rock fragments, some iron staining, feldspar, dark minerals, gravel is imbricated near base of unit, saturated. 49% gravel, 29% sand, 7% silt, 15% clay. Top of bedrock at 24.5 ft.
	No recovery for this interval
SANDY CLAYSTONE	Sandy Claystone - yellowish gray (5Y7/2) to light olive gray (5Y5/2), very fine- to medium-grained, moderately sorted, sub-rounded, approximately 5% porosity, argillaceous cement, slightly to moderately friable, abundant quartz, trace dark minerals, iron stained and mottled throughout, iron oxide nodules at 25.0', 25.5' and 26.1', color change to light gray (N4) at 27.5', moist to wet. 24% sand, 5% silt, 71% clay
	VOA sample obtained from this interval
SANDY CLAYSTONE	Sandy Claystone - yellowish gray (5Y7/2) to light olive gray (5Y5/2), as described above
CLAYSTONE	Claystone with some sand - olive gray (5Y4/1), very fine- to medium-grained, well sorted, sub-rounded, approximately 4% porosity, argillaceous cement, slightly friable, abundant quartz, trace dark minerals, mottled to thinly/thickly laminated, carbonaceous material throughout and along lamined, moist. 12% sand, 3% silt, 85% clay

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 36.5	GROUND ELEVATION (FT):	5967.90	PROJECT NUMBER:	OU2/RI
NORTH:	749416.04	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST:	2086317.61	LOCATOR NUMBER: H13	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	03/31/92

LOG OF BORING NUMBER: 20791

REMARKS: HOLLOW-STEM AUGER BENTONITE SEAL 28.7 FT - 23.6 FT. BACKFILL MATERIAL: BENTONITE 37.9 FT - 36.5 FT

CHEMICAL SAMPLE
GRADATIONAL SA.
SAMPLE NUMBER
DEPTH

SAMPLE GRAIN SIZE: 0% 50% 100%

PERCENT RECOVERY: 100% 0% 100%

RECOVERY/INTERVAL: 2.00/2.00; 2.00/2.00; 2.00/2.00

DATUM (FT): 5937, 5936, 5935, 5934, 5933, 5932, 5931, 5930, 5929, 5928

DEPTH (FT): 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40

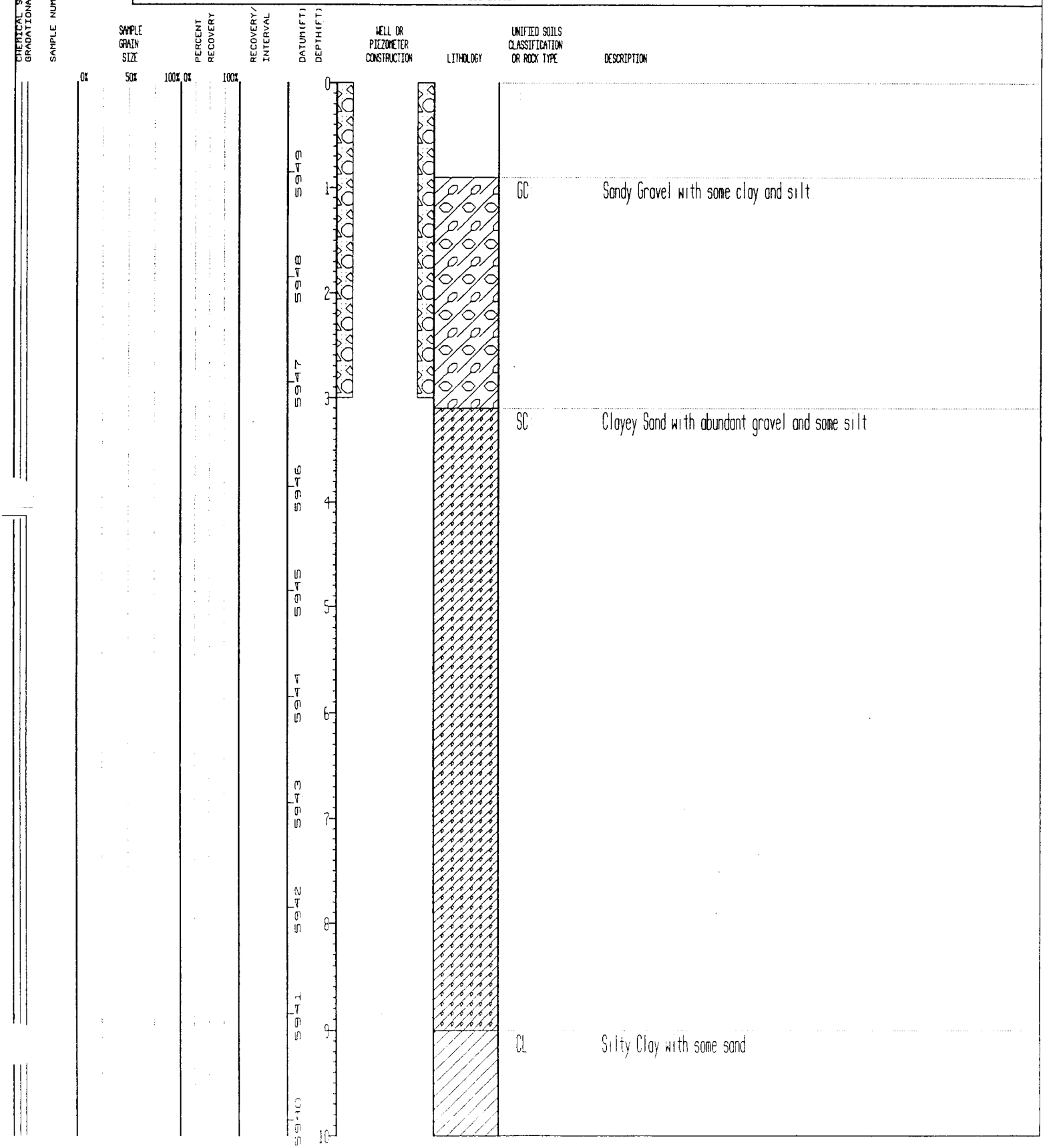
WELL OR PIEZOMETER CONSTRUCTION

LITHOLOGY

UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
SANDY CLAYSTONE	Sandy Claystone with some silt - yellowish gray (5Y7/2) to dark yellowish orange (10YR6/6) where iron stained, very fine- to fine-grained, well sorted, sub-angular to sub-rounded, approximately 3% porosity, argillaceous cement, slightly friable, abundant quartz, trace iron staining, dark minerals, thickly laminated to thinly bedded, carbonaceous material along laminea, iron nodule at 34.9', iron staining 32.4-33.8' and 34.5-36.0', moist. 26% sand, 6% silt, 68% clay
	Total depth at 36.5 ft

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 64.0	GROUND ELEVATION (FT):	5949.85	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749976.87	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	20891
EAST:	2087285.03	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/03/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 18.0 FT. - 14.0 FT.
WELL 20891 WAS REAMED. UNIT BREAKS BASED ON CORE FROM WELL 20991.



STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 64.0	GROUND ELEVATION (FT):	5949.85	PROJECT NUMBER:	OU2/RI
NORTH:	749976.87	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST:	2087285.03	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/03/92

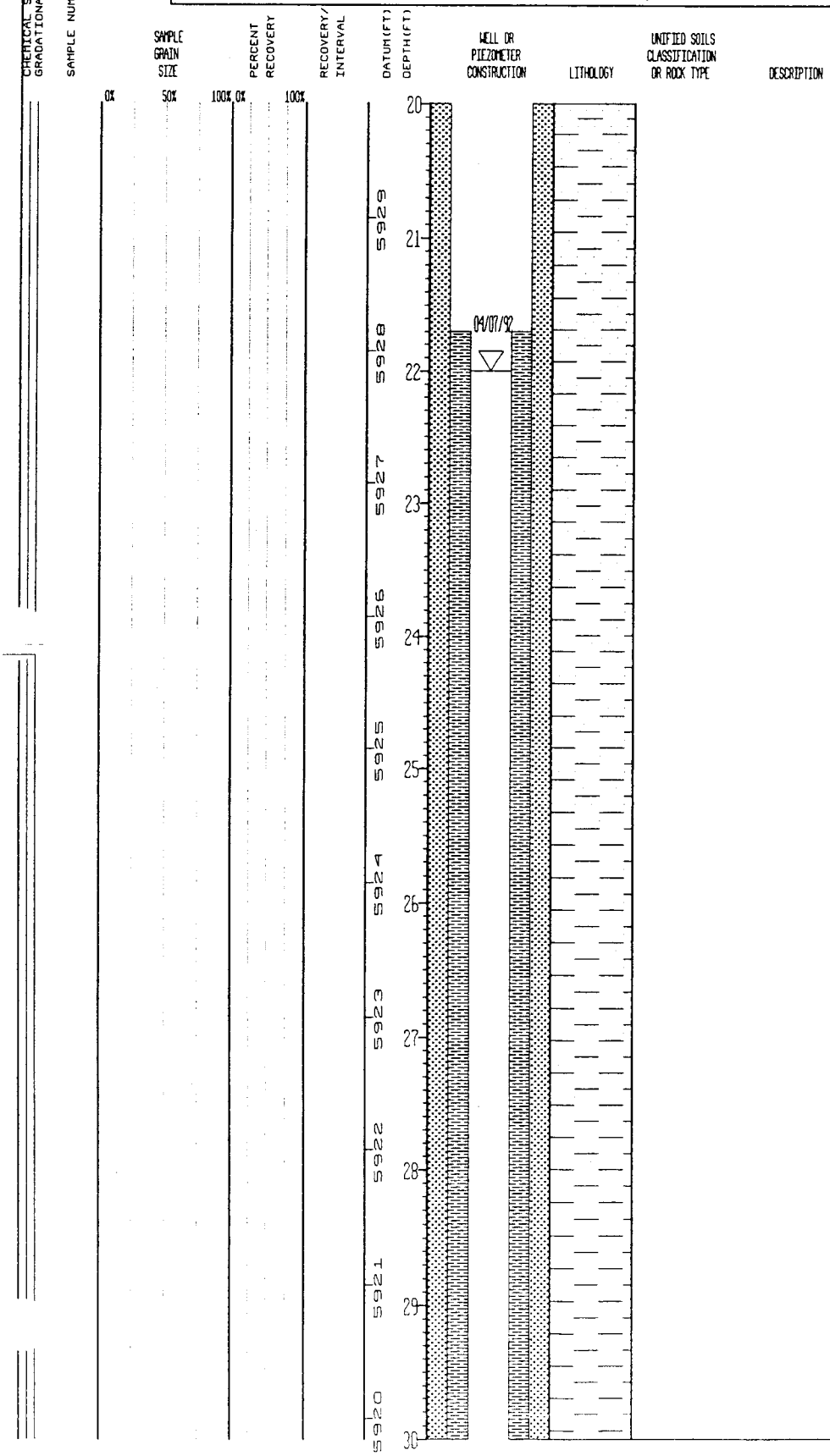
LOG OF BORING NUMBER: 20891

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 18.0 FT - 14.0 FT.
WELL 20891 WAS REAMED. UNIT BREAKS BASED ON CORE FROM WELL 20991

CHEMICAL SAMPL / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%		5939 5938 5937 5936 5935 5934 5933 5932 5931 5930	10 11 12 13 14 15 16 17 18 19 20				CLAYEY SANDSTONE Clayey Sandstone with some silt

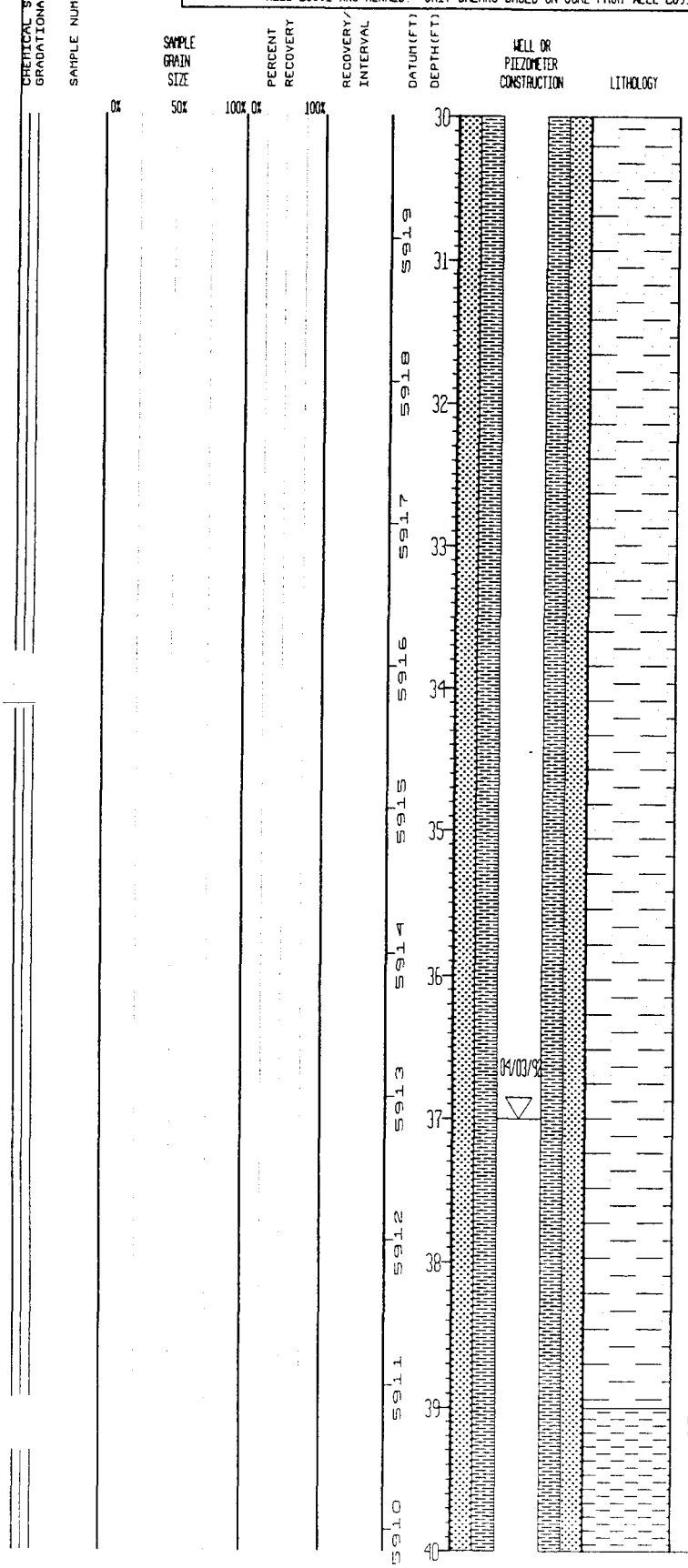
STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 64.0	GROUND ELEVATION (FT):	5949.85	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749976.87	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	20891
EAST:	2087285.03	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/03/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 18.0 FT. - 14.0 FT.
WELL 20891 WAS REAMED. UNIT BREAKS BASED ON CORE FROM WELL 20991.



STATE PLANE COORDINATE:		TOTAL DEPTH (FT) 64.0	GROUND ELEVATION (FT)	5949.85	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749976.87	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	20891
EAST:	2087285.03	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/03/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 18.0 FT. - 14.0 FT.
WELL 20891 WAS REAMED. UNIT BREAKS BASED ON CORE FROM WELL 20991.



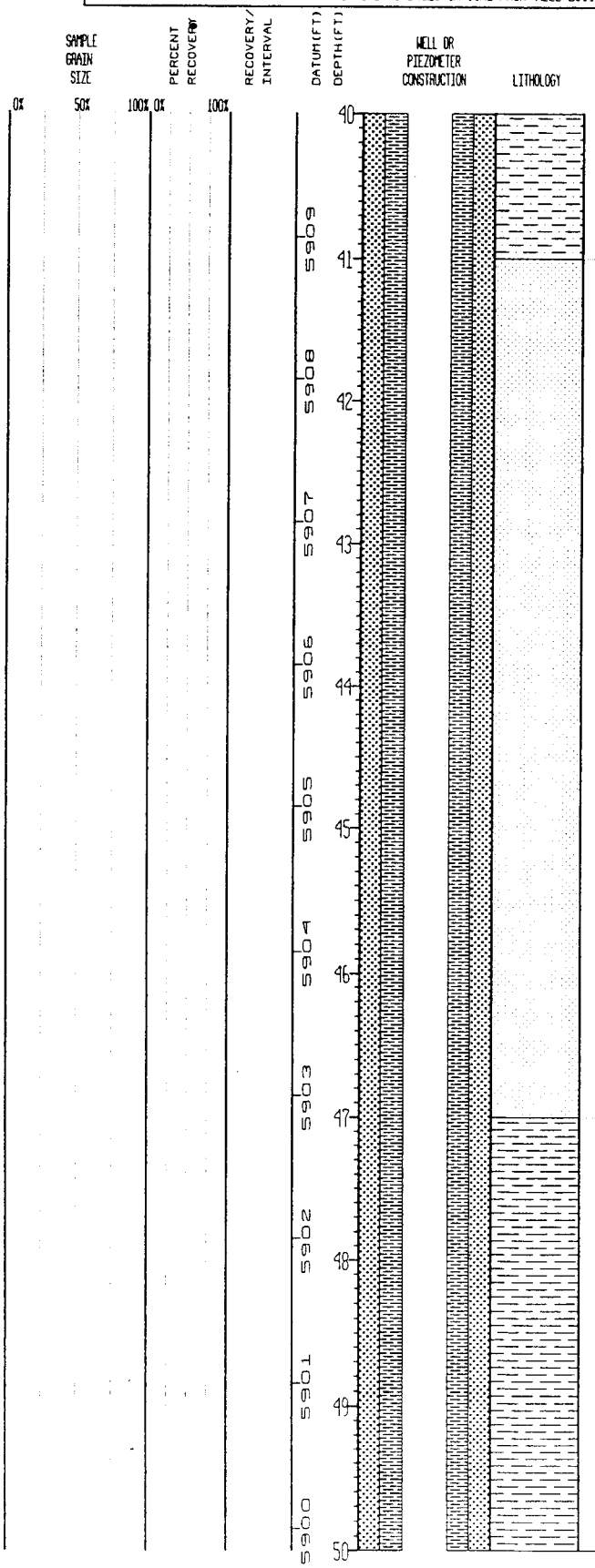
UNIFIED SOILS CLASSIFICATION OR ROCK TYPE

DESCRIPTION

SANDY CLAYSTONE Sandy Claystone with some silt

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 64.0	GROUND ELEVATION (FT):	5949.85	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749976.87	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	20891
EAST:	2087285.03	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/03/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 18.0 FT - 14.0 FT
WELL 20891 WAS REAMED. UNIT BREAKS BASED ON CORE FROM WELL 20991.



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
SANDSTONE:	Sandstone with some silt and clay
CLAYSTONE	Claystone with some sand

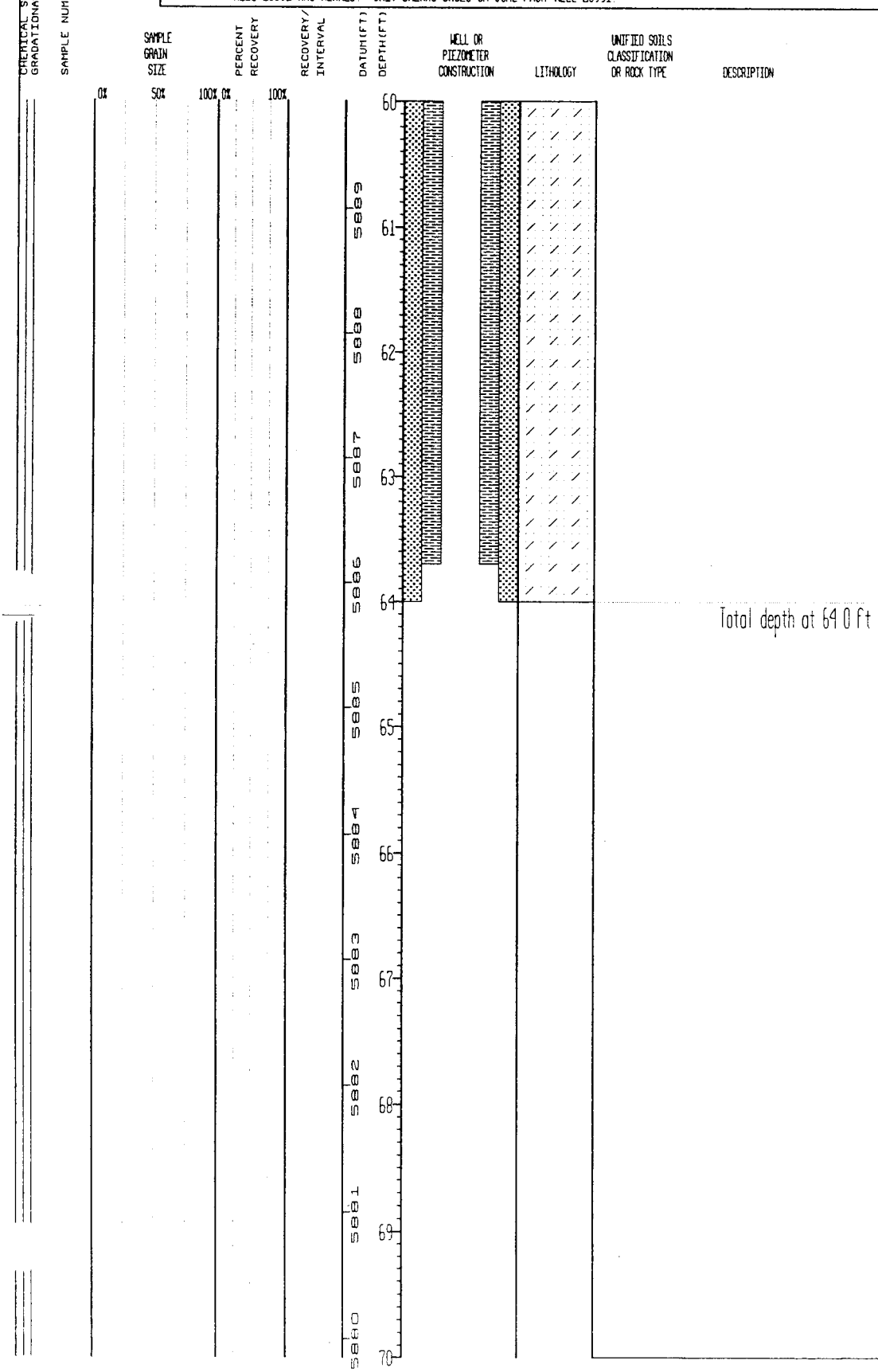
STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 64.0	GROUND ELEVATION (FT):	5949.85	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749976.87	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	20891
EAST:	2087285.03	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/03/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 18.0 FT. - 14.0 FT.
WELL 20891 WAS REAMED. UNIT BREAKS BASED ON CORE FROM WELL 20991.

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL (0% 100%)	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					5899	50				
					5898	51				
					5897	52				
					5896	53				
					5895	54				SANDY CLAYSTONE Sandy Claystone with some silt
					5894	55				SANDY CLAYSTONE Sandy Claystone with some silt
					5893	56				
					5892	57				SILTY SANDSTONE Silty Sandstone
					5891	58				
					5890	59				
						60				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 64.0	GROUND ELEVATION (FT):	5949.85	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749976.87	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	20891
EAST:	2087285.03	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/03/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 18.0 FT. - 14.0 FT.
WELL 20891 WAS REAMED. UNIT BREAKS BASED ON CORE FROM WELL 20991.

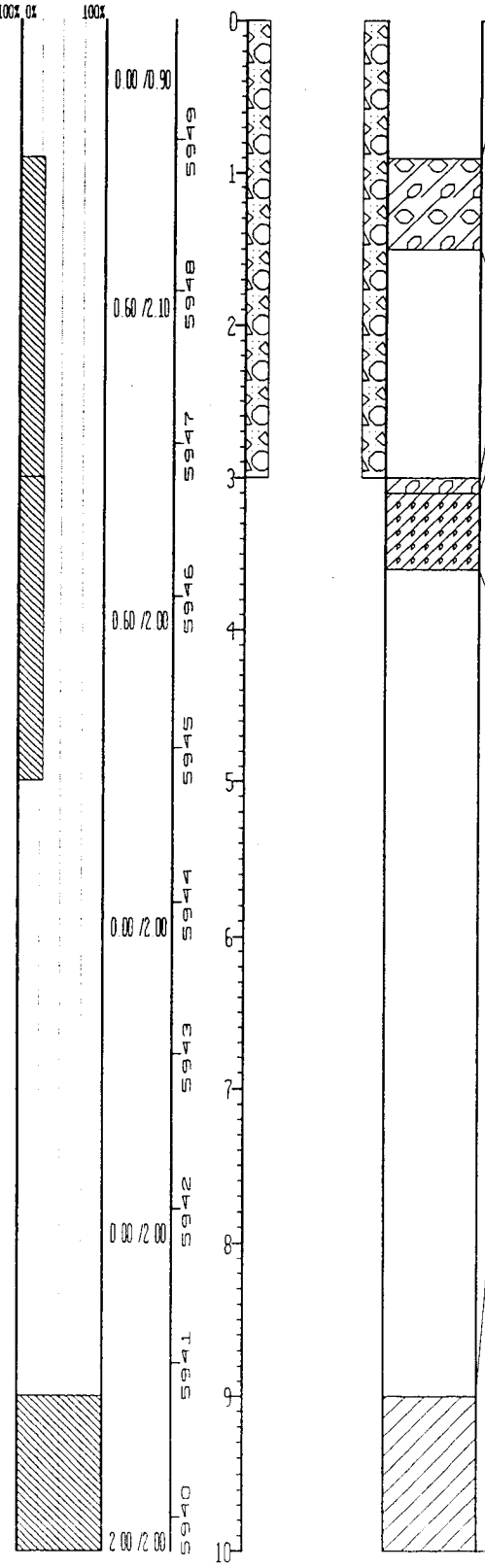


STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 70.0	GROUND ELEVATION (FT):	5949.78	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 749970.90	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	20991
EAST: 2087286.68	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/03/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 18.5 FT. - 15.5 FT. BACKFILL MATERIAL: BENTONITE 70.0 FT. - 65.0 FT.

CHEMICAL SAMPL
GRADATIONAL SI
SAMPLE NUMBER
DEPTH

SAMPLE GRAIN SIZE (0% 50% 100%) | PERCENT RECOVERY (0% 100%) | RECOVERY/INTERVAL | DATUM (FT) | DEPTH (FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION



Top soil, start of boring at 0.90 ft

GC: Sandy Gravel with some clay and silt - very dusky red (10R2/2), maximum gravel diameter .17', average .07', fine- to coarse-grained sand, well graded, gravel is sub-rounded, sand is angular to sub-rounded, low plasticity, gravel is primarily quartzite, sand contians abundant carbonaceous/organic material, quartz, some rock fragments, clear quartz, feldspar, trace mica, moist
39% gravel, 31% sand, 12% silt, 18% clay

No recovery for this interval

GC: Sandy Gravel with some clay and silt - very dusky red (10R2/2), as described above.

SC: Clayey Sand with abundant gravel and some silt - very pale orange (10YR8/2), maximum gravel diameter .12', average .07' fine- to coarse-grained sand, well graded, gravel is rounded, sand is sub-angular, medium plasticity, gravel is primarily caliche coated quartzite and calcrete, sand contains abundant calcrete/caliche, quartz, some rock fragments, trace dark minerals
29% gravel, 33% sand, 7% silt, 31% clay

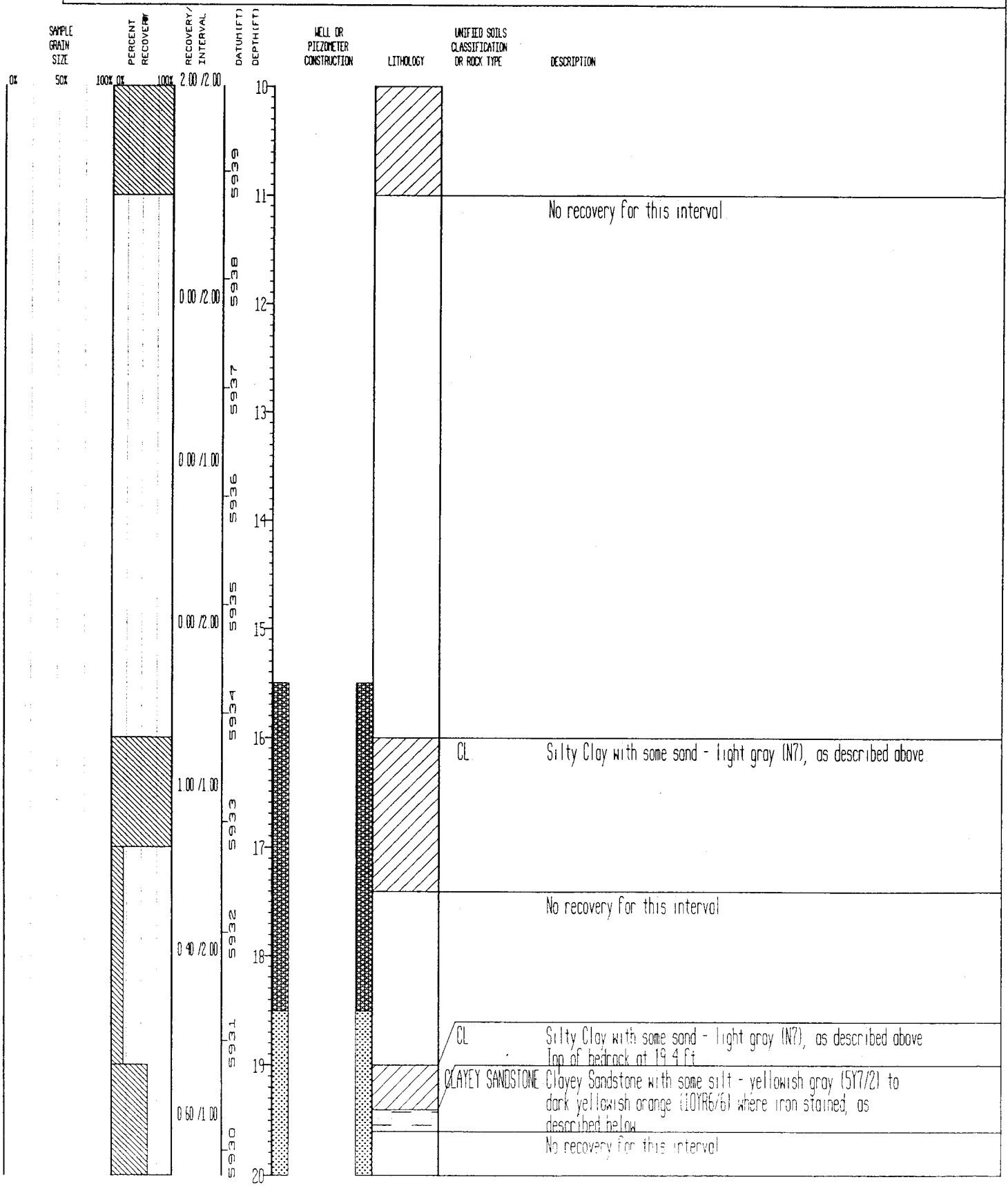
No recovery for this interval

CL: Silty Clay with some sand - light gray (N7), color change to light olive gray (5Y5/2) at 16'0-19'0', dark yellowish orange (10YR6/6) where iron stained, maximum gravel diameter > .25' at 19'1-19'4', average .02', fine- grained sand, poorly graded, angular, medium plasticity, gravel is primarily iron stained quartzite, sand contains abundant quartz, some feldspar and dark minerals, vertically alligned carbonaceous organic material (plant roots?) at 9'4-9'6', caliche nodules at 9'7-9'9' and 10'6-11'0', well developed calcite nodule at 17'2' which displays boytroydal crystal form indicative of growth in open pore space, calcite/caliche nodules-iron stain and laminations at sharp bedrock contact, moist
1% gravel, 6% sand, 22% silt, 71% clay

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 70.0	GROUND ELEVATION (FT):	5949.78	PROJECT NUMBER	OU2/RI
NORTH:	749970.90	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST:	2087286.68	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/03/92

LOG OF BORING NUMBER: 20991

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 18.5 FT. - 15.5 FT. BACKFILL MATERIAL: BENTONITE 70.0 FT. - 65.0 FT.



STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 70.0	GROUND ELEVATION (FT):	5949.78	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749970.90	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	20991
EAST:	2087286.68	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/03/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 18.5 FT. - 15.5 FT. BACKFILL MATERIAL: BENTONITE 70.0 FT. - 65.0 FT.

CHEMICAL SAMPLE
GRADATIONAL SA
DEPTH
SAMPLE NUMBER

SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
0% 50% 100%	0% 100%	1.00 /1.00	5929	20			CLAYEY SANDSTONE	Clayey Sandstone with some silt - yellowish gray (5Y7/2) to dark yellowish orange (10YR6/6) where iron stained, very fine- to medium-grained sand, moderately sorted, sub-angular to sub-rounded, approximately 17% porosity, argillaceous cement, moderately to highly friable, abundant frosted quartz some rock fragments, feldspar, dark minerals, iron stain, well developed iron nodules with a maximum diameter of .08' at 21.0-22.0', thick lamination of clay at 22.9', iron staining at 23.2-23.4', 26.3-26.7', 28.0-29.0', 29.1-30.0', 30.5', 31.0-31.4', 32.0-32.6', 33.4-39.0', increased sand/silty clay laminations at 26.0-27.0', slight increase in clay content at 31.5-31.8', laminations excentuated by iron stain at 31.8-32.3', ripple lamination 34.4-34.5', iron stained sand loaded into clay bed 37.3-37.8', moist to wet. 53% sand, 19% silt, 28% clay
		2.00 /2.00	5928	21				
		2.00 /2.00	5927	22				
		2.00 /2.00	5926	23				
		2.00 /2.00	5925	24				
		2.00 /2.00	5924	25				
		2.00 /2.00	5923	26				
		2.00 /2.00	5922	27	04/03/92			
		2.00 /2.00	5921	28				
		2.00 /2.00	5920	29				
				30				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 70.0	GROUND ELEVATION (FT):	5949.78	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER
NORTH:	749970.90	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	20991
EAST:	2087286.68	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/03/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 18.5 FT. - 15.5 FT. BACKFILL MATERIAL: BENTONITE 70.0 FT. - 65.0 FT.

DEPTH	CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			0% 50% 100%	0% 100%	2.00 /2.00	5919	30				
							31				
					1.60 /2.00	5918	32				
						5917	33				No recovery for this interval
					1.60 /2.00	5916	34			CLAYEY SANDSTONE	Clayey Sandstone with some silt - yellowish gray (5Y7/2) to dark yellowish orange (10YR6/6) where iron stained, as described above
						5915	35				No recovery for this interval
					1.30 /2.00	5914	36			CLAYEY SANDSTONE	Clayey Sandstone with some silt - yellowish gray (5Y7/2) to dark yellowish orange (10YR6/6) where iron stained, as described above
						5913	37				No recovery for this interval
					1.20 /2.00	5912	38			CLAYEY SANDSTONE	Clayey Sandstone with some silt - yellowish gray (5Y7/2) to dark yellowish orange (10YR6/6) where iron stained, as described above
											No recovery for this interval
						5911	39			SANDY CLAYSTONE	Sandy Claystone with some silt - pale brown (5YR5/2), very fine- to medium-grained, moderately sorted, rounded, approximately 10% porosity, argillaceous cement, highly friable, abundant frosted quartz, trace dark minerals, iron and limonite stain, unconsolidated, iron stain at 39.9-40.1', wet to saturated 39% sand, 10% silt, 51% clay
					1.30 /2.00	5910	40				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 70.0	GROUND ELEVATION (FT):	5949.78	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749970.90	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	20991
EAST:	2087286.68	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/03/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 18.5 FT. - 15.5 FT. BACKFILL MATERIAL: BENTONITE 70.0 FT. - 65.0 FT.

DEPTH	CHEMICAL SAMPL GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
0%		BH007620C02	50%	100% 0% 100%	1.30 /2.00	5909	40				VOA sample obtained from this interval No recovery for this interval
					2.00 /2.00	5908	41			SANDSTONE:	Sandstone with some silt and clay - yellowish gray (5Y7/2) to dark yellowish orange (10YR6/6) where iron stained, clay is medium gray (N5), fine- to medium-grained, well sorted, rounded to well rounded, approximately 20% porosity, argillaceous cement, highly friable, abundant frosted quartz, some dark minerals/rock fragments, trace clear quartz, iron/limonite stain, sand loaded into top of clay bed at 43.6-43.8', sand at 43.8-44.1' loaded into top of clay bed at 44.1-44.3' laminated clay/sand at 44.3-44.6', clay rip-up clast at 46.0', laminated, cross-laminated and ripple laminated at 45.8-47.0', iron stain at 43.8-44.1', 44.3-44.6', 45.7-45.8', saturated. 81% sand, 12% silt, 7% clay
		20991-42.8				5907	42				
					1.60 /2.00	5906	43				GEO-TECH sample obtained from this interval
						5905	44			SANDSTONE:	Sandstone with some silt and clay - yellowish gray (5Y7/2) to dark yellowish orange (10YR6/6) where iron stained, as described above
					2.00 /2.00	5904	45				No recovery for this interval
						5903	46			SANDSTONE:	Sandstone with some silt and clay - yellowish gray (5Y7/2) to dark yellowish orange (10YR6/6) where iron stained, as described above
					2.00 /2.00	5902	47			CLAYSTONE:	Claystone with some sand - light gray (N7) to yellowish gray (5Y7/2), very fine- to fine-grained, very well sorted, rounded, approximately 9% porosity, argillaceous cement, medium friability, abundant frosted quartz, some dark minerals/rock fragments, trace iron stain, silty clay/clayey sand thinly bedded to thinly laminated, increased sand content at 47.7-48.2', 48.9-49.4', and 49.6-50.4', saturated. 15% sand, 5% silt, 80% clay
						5901	48				
					1.40 /2.00	5900	49				
							50				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 70.0	GROUND ELEVATION (FT):	5949.78	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 749970.90	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	20991
EAST: 2087286.68	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/03/92	

REMARKS: HOLLOW-STEM AUGER BENTONITE SEAL 18.5 FT. - 15.5 FT. BACKFILL MATERIAL: BENTONITE 70.0 FT. - 65.0 FT.

DEPTH	CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			0% 50% 100%	0% 100%	1.40/2.00	5899	50				No recovery for this interval.
					2.00/2.00	5898	51			CLAYSTONE	Claystone with some sand - light gray (N7) to yellowish gray (5Y7/2), as described above.
					1.90/2.00	5896	52			SANDY CLAYSTONE	Sandy Claystone with some silt - dark yellowish orange (10YR6/6), very fine- to medium-grained, moderately sorted, rounded to well-rounded, approximately 16% porosity, argillaceous cement, highly friable, abundant iron stained frosted quartz some dark minerals/rock fragments, trace clear quartz, excellent flame structure (clay injected into overlying sand) at 54.6-55.0' 37% sand, 22% silt, 41% clay
					2.00/2.00	5894	53			SANDY CLAYSTONE	Sandy Claystone with some silt - medium dark gray (N4) to light gray (N7), dark yellowish orange (10YR6/6) where iron stained, very fine- to fine-grained, very well sorted, sub-rounded to rounded, approximately 10% porosity, argillaceous cement, highly friable, abundant frosted quartz, some rock fragments, dark minerals, iron stain, trace limonite stain, thinly laminated to thinly bedded, increased sand content at 56.0-56.4', increased clay content at 56.4-56.6', wet to saturated. 23% sand, 12% silt, 65% clay
		20991-56.8			2.00/2.00	5892	54			SILTY SANDSTONE	Silty Sandstone - sand is dusky yellow (5Y6/4), clay interbeds are medium dark gray (N4), sand is dark yellowish orange (10YR6/6) where iron stained, as described below.
											GEO-TECH sample obtained from this interval
					2.00/2.00	5891	55			SILTY SANDSTONE	Silty Sandstone - sand is dusky yellow (5Y6/4), clay interbeds are medium dark gray (N4), sand is dark yellowish orange (10YR6/6) where iron stained, sand is fine- to coarse-grained moderately sorted, rounded to well-rounded, approximately 23% porosity, argillaceous cement, highly friable, abundant frosted quartz, rock fragments, trace dark minerals, feldspar, some clear quartz, clay beds at 57.4-57.6', 58.5-58.7', 58.9-59.1', sand is loaded into top of clay bed at 58.5' with 2' relief, iron staining at 58.3-58.5', and 59.2-61.0', iron nodules at 59.2', clay-sand interbedded at 63.0-64.0', wet to saturated 79% sand, 16% silt, 5% clay
					2.00/2.00	5890	56				
							57				
							58				
							59				
							60				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 70.0	GROUND ELEVATION (FT):	5949.78	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 749970.90	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	20991
EAST: 2087286.68	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/03/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 18.5 FT. - 15.5 FT. BACKFILL MATERIAL: BENTONITE 70.0 FT. - 65.0 FT.

DEPTH | CHEMICAL SAMPLE | GRADATIONAL SA | SAMPLE NUMBER | SAMPLE GRAIN SIZE (0% 50% 100%) | PERCENT RECOVERY (0% 100%) | RECOVERY/INTERVAL | DATUM (FT) | DEPTH (FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION

RECOVERY/INTERVAL	DEPTH (FT)	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
2.00 /2.00	60		
	61		No recovery for this interval.
0.00 /2.00	62		
	63	SILTY SANDSTONE	Silty Sandstone - sand is dusky yellow (5Y6/4), clay interbeds are medium dark gray (N4), sand is dark yellowish orange (10YR6/6), as described above
1.00 /1.00	64	SANDY CLAYSTONE	Sandy Claystone - medium dark gray (N4) to grayish black (N2), very fine- to fine-grained, very well sorted, rounded to well rounded, approximately 5% porosity, argillaceous cement, moderately to slightly friable, abundant quartz, trace dark minerals, carbonaceous material throughout, laminated, iron stain and nodules at 64.3', core is dry below 64.4', sand rip-up clast at 65.8', increased sand content at 69.8-70.0, wet at 64.0-64.4', dry to moist 64.4-70.0' 27% sand, 5% silt, 68% clay
2.00 /2.00	65		
	66		VOA sample obtained from this interval
		SANDY CLAYSTONE	Sandy Claystone - medium dark gray (N4) to grayish black (N2), as described above
2.00 /2.00	67		
	68		
2.00 /2.00	69		
	70		Total depth at 70.0 ft

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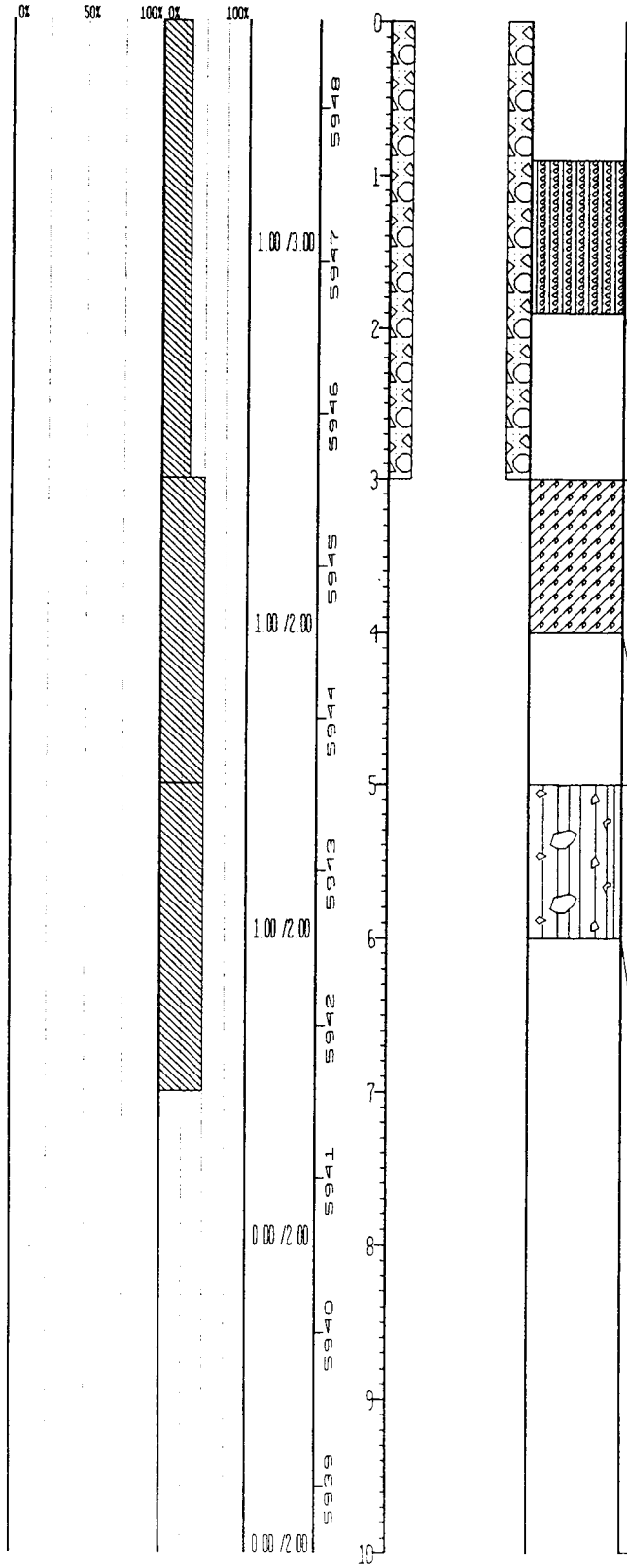
STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 68.0	GROUND ELEVATION (FT):	5948.57	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 749997.08	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	21091
EAST: 2087282.14	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/08/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 17.0 FT. - 14.5 FT. BACKFILL MATERIAL: BENTONITE 68.0 FT. - 19.0 FT.

DEPTH | CHEMICAL SAMPLE | GRADATIONAL SA. | SAMPLE NUMBER | SAMPLE GRAIN SIZE (0% 50%) | PERCENT RECOVERY (100% 0%) | RECOVERY/INTERVAL (100%) | DATUM (FT) | DEPTH (FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION



Top soil, start of boring at 0.90 ft.

SM: Silty Sand with some gravel and clay - grayish brown (5YR3/2), maximum gravel diameter .2', average .05', fine- to coarse-grained sand, well graded, angular to sub-angular, medium plasticity, gravel is primarily quartzite with some weathered granite, sand contains abundant carbonaceous/organic material, quartz, some rock fragments, feldspar, calcrete, trace mica, no apparent bedding, moist.
19% gravel, 46% sand, 21% silt, 14% clay.

No recovery for this interval.

SC: Clayey Sand with some gravel and silt - light brown (5YR6/4) to light brown (5YR5/6), maximum gravel diameter > .25', average .05', fine- to coarse-grained sand, well graded, angular to sub-angular, medium plasticity, gravel is primarily caliche coated quartzite with some weathered granite at 3.7', sand contains abundant quartz, caliche/calcrete, trace rock fragments, dark minerals, feldspar, mica, no apparent bedding, manganese staining, dry.
14% gravel, 50% sand, 10% silt, 26% clay.

No recovery for this interval.

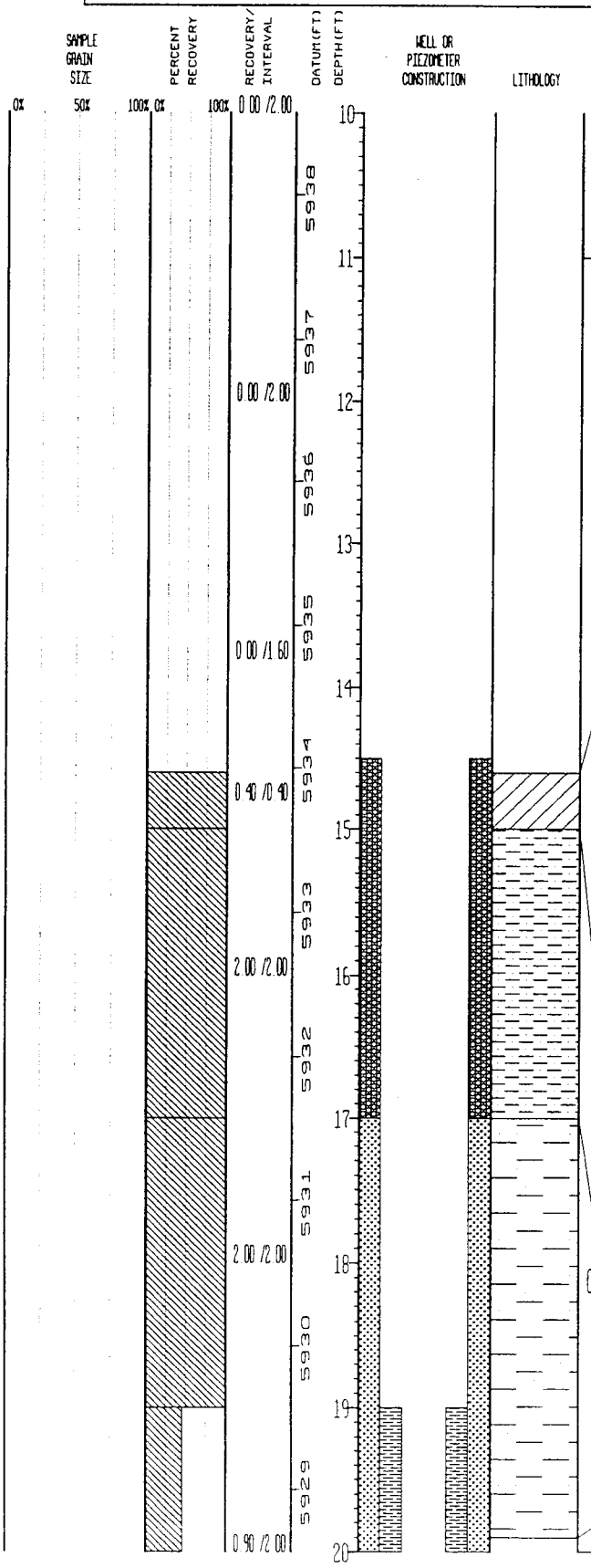
GM: Sandy Gravel with some silt and clay - light brown (5YR5/6), maximum gravel diameter .2', average .08', fine- to coarse-grained sand, well graded, angular to sub-angular, low to medium plasticity, gravel is primarily quartzite, sand contains abundant quartz, some feldspar, rock fragments, dark minerals, iron and limonite stain, trace mica, obsedian, no apparent bedding, dry.
39% gravel, 36% sand, 16% silt, 9% clay.
Note: grab samples were taken at 11.0-13.0', and 13.0-14.6', enabling this unit break, despite no split spoon recovery.

No recovery for this interval.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 68.0	GROUND ELEVATION (FT):	5948.57	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749997.08	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	21091
EAST:	2087282.14	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/08/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 17.0 FT. - 14.5 FT. BACKFILL MATERIAL: BENTONITE 68.0 FT. - 19.0 FT.

CHEMICAL SAMPLE
GRADATIONAL SAMPLE
DEPTH
SAMPLE NUMBER



UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	No recovery for this interval.
CL	Sandy Clay with some silt and gravel - yellowish gray (5Y7/2), maximum gravel diameter > .25', average .01', fine- to medium-grained, poorly graded, angular to sub-angular, medium to high plasticity, gravel is primarily quartzite, sand contains abundant quartz, some rock fragments, dark minerals, trace feldspar, iron/limonite stain, mica, moderately laminated alluvial material and reworked bedrock, note laminea of coarse sandy alluvial material at 14.7-14.8', iron stain at 14.8-15.0', moist. 3% gravel, 26% sand, 21.% silt, 50% clay. Top of bedrock at 15.0 ft. Note: Grab samples available from 11.0-14.6'
SANDY CLAYSTONE	Sandy Claystone - medium light gray (N6), very fine- to medium-grained, moderately sorted, sub-rounded to well rounded, approximately 6% porosity, argillaceous cement, moderately friable, abundant frosted quartz, some clear quartz, iron and limonite stain, trace dark minerals/rock fragments, iron stain at 15.1', 15.3', 15.5', 16.2-16.3', caliche nodules at 15.2', 16.2-16.3', 16.7', moist. 38% sand, 4% silt, 58% clay
CLAYEY SANDSTONE	Clayey Sandstone with some silt - yellowish gray (5Y7/2), very fine- to medium-grained, well sorted, sub-rounded to rounded, approximately 12% porosity, argillaceous cement, highly friable, abundant frosted quartz, some dark minerals, feldspar, trace iron and limonite stain, thinly to thickly laminated, carbonaceous material throughout, vertically aligned roots at 18.0', 19.7', wood fragment at 19.6', iron nodules at 19.8', iron stain at 17.6', 17.9' 19.4', 19.8', moist. 60% sand, 16% silt, 24% clay
	No recovery for this interval.

STATE PLANE COORDINATE		TOTAL DEPTH (FT): 68.0	GROUND ELEVATION (FT):	5948.57	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749997.08	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	21091
EAST:	2087282.14	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/08/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 17.0 FT. - 14.5 FT. BACKFILL MATERIAL: BENTONITE 68.0 FT. - 19.0 FT.

DEPTH	CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
			0% 50%	100% 0%	100% 0.90 /2.00		20				No recovery for this interval.
						5928	21			SILTY SANDSTONE	Silty Sandstone with some clay - yellowish gray (5Y7/2) to grayish yellow (5Y8/4), very fine- to medium-grained, moderately sorted, sub-rounded to rounded, approximately 12% porosity, argillaceous cement, highly friable, abundant frosted quartz, some dark minerals, trace clear quartz, feldspar, iron and limonite stain, iron nodules at 28.9', iron stain at 23.4', 23.7', 27.1', 28.9', increased clay content at 27.6-27.8', some faint de-watering structures throughout, moist to wet. 56% sand, 24% silt, 20% clay
					1.10 /2.00	5927	22				No recovery for this interval.
						5926	23			SILTY SANDSTONE	Silty Sandstone with some clay - yellowish gray (5Y7/2) to grayish yellow (5Y8/4), as described above.
					0.70 /2.00	5925	24				No recovery for this interval
						5924	25			SILTY SANDSTONE	Silty Sandstone with some clay - yellowish gray (5Y7/2) to grayish yellow (5Y8/4), as described above.
					0.50 /2.00	5923	26				No recovery for this interval
						5922	27	04/09/92		SILTY SANDSTONE	Silty Sandstone with some clay - yellowish gray (5Y7/2) to grayish yellow (5Y8/4), as described above.
					1.00 /2.00	5921	28	04/03/92			No recovery for this interval
					0.50 /2.00	5920	29			CLAYEY SANDSTONE	Clayey Sandstone with some silt - yellowish gray (5Y7/2) to grayish yellow (5Y8/4), clay is light gray (N7), as described below
						5919	30				No recovery for this interval

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 68.0	GROUND ELEVATION (FT): 5948.57	PROJECT NUMBER: OU2/RI	LOG OF BORING NUMBER
NORTH: 749997.08	AREA: NE TRENCHES	CASING DIAMETER (IN): 2.0	GEOLOGIST: J.P. O'BRIEN	21091
EAST: 2087282.14	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN): 10.0	DATE DRILLED: 04/08/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 17.0 FT. - 14.5 FT. BACKFILL MATERIAL: BENTONITE 68.0 FT. - 19.0 FT.

CHEMICAL SAMPLE / GRADATIONAL SA.	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50%	100% 0%	100% 0.50 /2.00	5918	30			CLAYEY SANDSTONE	Clayey Sandstone with some silt - yellowish gray (5Y7/2) to grayish yellow (5Y8/4), clay is light gray (N7), very fine- to medium-grained, moderately sorted, rounded to well rounded, approximately 15% porosity, argillaceous cement, moderately friable, abundant frosted quartz, trace dark minerals, rock fragments, iron nodules, iron/limonite stain, laminated sand is ripple laminated, increased sand content at 35.4-36.0', 41.05-41.3', increased sand content at 43.4-43.7', moderately laminated to thinly bedded clay/sand at 39.8-40.4', iron staining at 37.1', 43.3-43.5', clay rip-up clast (>.12'x.12') with iron stain coating at 39.1', clay rip-up clasts at 43.3-43.5', saturated 66% sand, 8% silt, 26% clay
				0.50 /2.00	5917	31				
					5916	32				
										No recovery for this interval
BH00767MC02					5915	33			CLAYEY SANDSTONE	Clayey Sandstone with some silt - yellowish gray (5Y7/2) to grayish yellow (5Y8/4), clay is light gray (N7), as described above. VOA samples obtained from 33.0-33.2', and from 33.2-33.4'
BH00768MC02				0.40 /2.00	5914	34				No recovery for this interval
					5913	35			CLAYEY SANDSTONE	Clayey Sandstone with some silt - yellowish gray (5Y7/2) to grayish yellow (5Y8/4), clay is light gray (N7), as described above
				1.10 /2.00	5912	36				No recovery for this interval
					5911	37			CLAYEY SANDSTONE	Clayey Sandstone with some silt - yellowish gray (5Y7/2) to grayish yellow (5Y8/4), clay is light gray (N7), as described above
				1.50 /2.00	5910	38				No recovery for this interval
					5909	39			CLAYEY SANDSTONE	Clayey Sandstone with some silt - yellowish gray (5Y7/2) to grayish yellow (5Y8/4), clay is light gray (N7), as described above
				1.40 /2.00		40				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 68.0	GROUND ELEVATION (FT):	5948.57	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749997.08	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	21091
EAST:	2087282.14	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/08/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 17.0 FT. - 14.5 FT. BACKFILL MATERIAL: BENTONITE 68.0 FT. - 19.0 FT.

CHEMICAL SAMPLE
GRADATIONAL SA.
SAMPLE NUMBER
DEPTH

SAMPLE GRAIN SIZE: 0% 50% 100%

PERCENT RECOVERY: 0% 100%

RECOVERY/INTERVAL: 1.40 /2.00; 1.00 /2.00; 1.40 /2.00; 1.00 /2.00; 1.80 /2.00; 1.40 /2.00

DATUM (FT): 5908, 5907, 5906, 5905, 5904, 5903, 5902, 5901, 5900, 5899

DEPTH (FT): 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50

WELL OR PIEZOMETER CONSTRUCTION

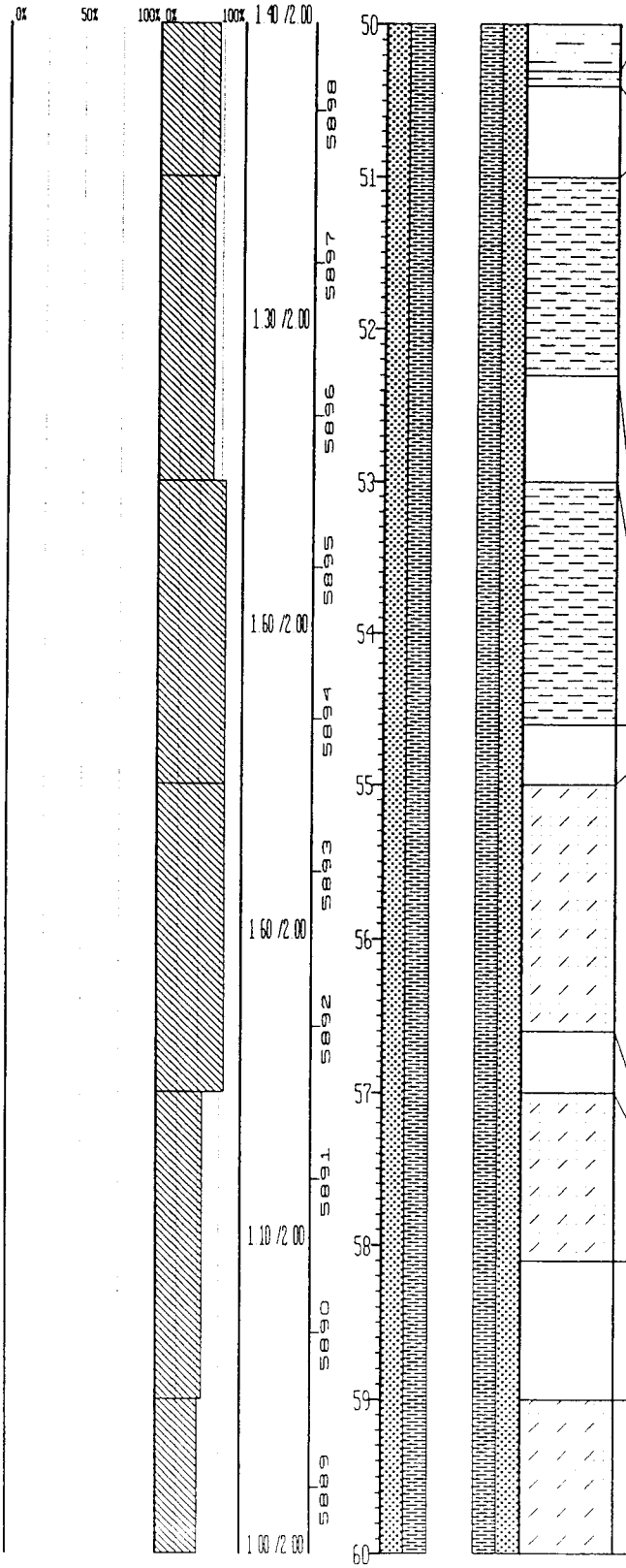
LITHOLOGY

UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
	No recovery for this interval
CLAYEY SANDSTONE	Clayey Sandstone with some silt - yellowish gray (5Y7/2) to grayish yellow (5Y8/4), clay is light gray (N7), as described above.
	No recovery for this interval
CLAYEY SANDSTONE	Clayey Sandstone with some silt - yellowish gray (5Y7/2) to grayish yellow (5Y8/4), clay is light gray (N7), as described above.
CLAYEY SANDSTONE	Clayey Sandstone with some silt - clay is medium light gray (N6) to medium gray (N5), sand is yellowish gray (5Y7/2), very fine- to fine-grained, very well sorted, rounded, approximately 5% porosity, argillaceous cement, slightly friable, abundant frosted quartz, trace dark minerals, increased clay content at 43.7-43.9', increased sand at 48.6-48.8', thinly to moderately laminated clay/sand at 43.9-44.4', sandy clay at 44.4-45.7', thinly laminated at 45.7-46.0', laminations become more clayey downward at 47.0-48.6', carbonaceous lamination at 48.7', thinly bedded clay/sand at 49.0-50.3', sand beds are iron stained and dark yellowish orange (10YR6/6) at 49.0-50.3', wet to saturated. 57% sand, 7% silt, 36% clay
	No recovery for this interval
CLAYEY SANDSTONE	Clayey Sandstone with some silt - clay is medium light gray (N6) to medium gray (N5), sand is yellowish gray (5Y7/2), as described above.
	No recovery for this interval
CLAYEY SANDSTONE	Clayey Sandstone with some silt - clay is medium light gray (N6) to medium gray (N5), sand is yellowish gray (5Y7/2), as described above.
	No recovery for this interval
CLAYEY SANDSTONE	Clayey Sandstone with some silt - clay is medium light gray (N6) to medium gray (N5), sand is yellowish gray (5Y7/2), as described above.

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 68.0	GROUND ELEVATION (FT):	5948.57	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	749997.08	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	21091
EAST:	2087282.14	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/08/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 17.0 FT. - 14.5 FT. BACKFILL MATERIAL: BENTONITE 68.0 FT. - 19.0 FT.

DEPTH | CHEMICAL SAMPLE | GRADATIONAL SA | SAMPLE NUMBER | SAMPLE GRAIN SIZE (0% 50% 100%) | PERCENT RECOVERY (0% 100%) | RECOVERY/INTERVAL | DATUM (FT) | DEPTH (FT) | WELL OR PIEZOMETER CONSTRUCTION | LITHOLOGY | UNIFIED SOILS CLASSIFICATION OR ROCK TYPE | DESCRIPTION



SANDY CLAYSTONE Sandy Claystone with some silt - clay is medium gray (N5) to light gray (N7), sand is dark yellowish orange (10YR6/6) where iron stained, as described below

No recovery for this interval.

SANDY CLAYSTONE Sandy Claystone with some silt - clay is medium gray (N5) to light gray (N7), sand is dark yellowish orange (10YR6/6) where iron stained, very fine- to fine-grained, well sorted, rounded, approximately 9% porosity, argillaceous cement, moderately friable, abundant frosted quartz, trace limonite/iron stain, dark minerals/rock fragments, feldspar, mica, thinly laminated to thinly bedded, increased sand content at 51.0-51.4', 51.8-52.3', increased sand content at 51.4-51.8', laminations dipping 10 degrees at 51.0-51.4', ripple lamination with amplitude of .05' and wavelength of .15' at 51.8', sand contains iron stain and nodules at 51.8-52.3', wavy and convolute laminea at 53.0-53.5', pseudonodules of sand-wavy and convolute laminea of sand/sandy clay at 53.5- 54.6', wet to saturated
40% sand, 12% silt, 48% clay

No recovery for this interval

SANDY CLAYSTONE Sandy Claystone with some silt - clay is medium gray (N5) to light gray (N7), sand is dark yellowish orange (10YR6/6) where iron stained, as described above

No recovery for this interval

SILTY SANDSTONE Conglomerate Bearing Silty Sandstone with some clay - yellowish gray (5Y8/1) to dark yellowish orange (10YR6/6), very fine- to medium-grained with trace granule pebbles, very poorly sorted, rounded to well rounded, approximately 22% porosity, argillaceous cement, highly friable, abundant frosted quartz, some unconsolidated rounded clay clasts, feldspar, rock fragments/dark minerals, iron stain, trace clear quartz, mica, iron stain and white clay rip-up clasts throughout, largest clay rip-up clast is approximately .05' x .05', granule pebbles at 57.5-63.0', saturated
7% granule pebbles, 60% sand, 21% silt, 18% clay

No recovery for this interval.

SILTY SANDSTONE Conglomerate Bearing Silty Sandstone with some clay - yellowish gray (5Y8/1) to dark yellowish orange (10YR6/6), as described above

No recovery for this interval

SILTY SANDSTONE Conglomerate Bearing Silty Sandstone with some clay - yellowish gray (5Y8/1) to dark yellowish orange (10YR6/6), as described above

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 68.0	GROUND ELEVATION (FT):	5948.57	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 749997.08	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	21091
EAST: 2087282.14	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/08/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL 17.0 FT. - 14.5 FT. BACKFILL MATERIAL: BENTONITE 68.0 FT - 19.0 FT

CHEMICAL SAMPLE / GRADATIONAL SAMPLE	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
						60				No recovery for this interval.
					5888	61			SILTY SANDSTONE	Conglomerate Bearing Silty Sandstone with some clay - yellowish gray (5Y8/1) to dark yellowish orange (10YR6/6), as described above.
				0.80 /2.00	5887	62				No recovery for this interval.
					5886	63			CLAYEY SANDSTONE	Clayey Sandstone with some silt - interbedded medium gray (N5) clay and dark yellowish orange (10YR6/6) sand, very fine- to coarse-grained, poorly sorted, rounded to well-rounded, approximately 16% porosity, argillaceous cement, highly friable, abundant frosted quartz, some rock fragments, dark minerals, feldspar, trace iron staining, mica, cross-laminations dipping 13 degrees at 63.9', convolute and contorted laminea with pseudonodules inclined up to 45 degrees (possible slump) at 64.4-64.6', contorted laminea and sand lenses at 63.0-63.9', wet to saturated. 60% sand, 16% silt, 24% clay.
				1.80 /2.00	5885	64				
	BH00769UC02				5884					VOA sample obtained from this interval.
						65				No recovery for this interval.
				1.00 /1.00	5883	66			SANDY CLAYSTONE	Sandy Claystone with some silt - medium light gray (N6) to medium dark gray (N4), very fine- to fine-grained, well sorted, sub-rounded to rounded, approximately 8% porosity, argillaceous cement, slightly to moderately friable, abundant frosted quartz, some dark minerals, clear quartz, ripple laminated - thin beds of cross-laminated sandy clay at 65.8-66.0', 67.8-68.0', moist to wet. 37% sand, 13% silt, 50% clay.
				2.00 /2.00	5882	67				
					5881	68				Total depth at 68.0 ft
					5880	69				
					5879	70				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 58.0	GROUND ELEVATION (FT):	5946.85	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 750059.98	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	21191
EAST: 2087598.92	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/13/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL: 29.0 FT. - 25.5 FT.
WELL 21191 WAS REAMED. UNIT BREAKS BASED ON CORE FROM WELL 20091.

CHEMICAL SAMPLE / GRADATIONAL SA.	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					5946	0–1			CL	Gravelly Clay with some silt and sand.
					5945	1–2			GC	Clayey Gravel with some sand and silt
					5944	2–3				
					5943	3–4				
					5942	4–5				
					5941	5–6				
					5940	6–7				
					5939	7–8				
					5938	8–9				
					5937	9–10				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 58.0	GROUND ELEVATION (FT):	5946.85	PROJECT NUMBER:	OU2/RI
NORTH: 750059.98	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST: 2087598.92	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/13/92

LOG OF BORING NUMBER: 21191

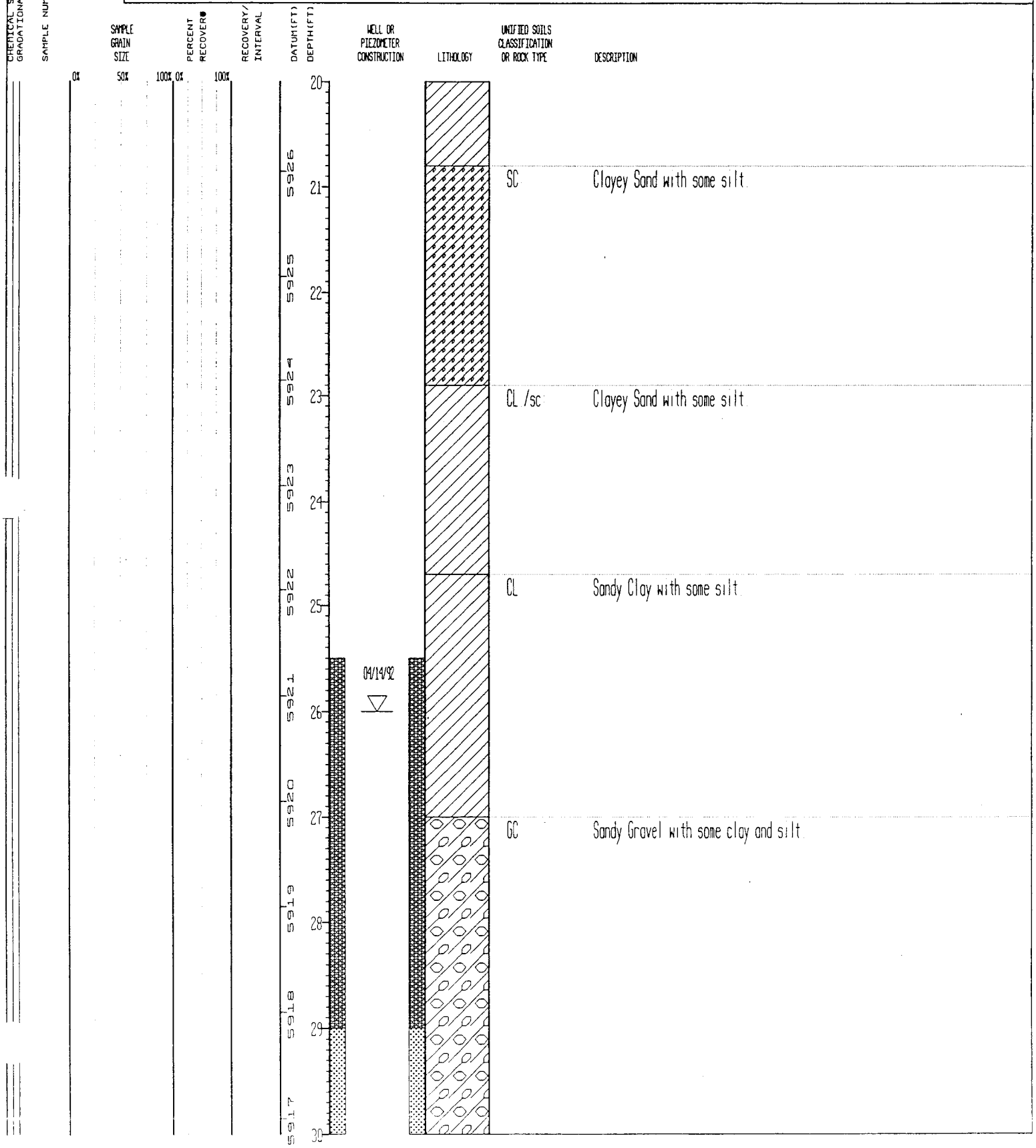
REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL: 29.0 FT. - 25.5 FT.
WELL 21191 WAS REAMED. UNIT BREAKS BASED ON CORE FROM WELL 20091

CHEMICAL SAMPL / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE	PERCENT RECOVERY	RECOVERY/ INTERVAL	DATUM(FT)	DEPTH(FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
		0% 50% 100%	0% 100%		5936	10				
					5935	11				
					5934	12				
					5933	13			CL	Sandy Clay with some silt
					5932	14			CL	Sandy Clay with some silt
					5931	15				
					5930	16	04/15/92			
					5929	17				
					5928	18				
					5927	19			CL	Sandy Clay with some silt
						20				

STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 58.0	GROUND ELEVATION (FT):	5946.85	PROJECT NUMBER:	OU2/RI
NORTH: 750059.98	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN
EAST: 2087598.92	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/13/92

LOG OF BORING NUMBER: 21191

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL: 29.0 FT - 25.5 FT
WELL 21191 WAS REAMED. UNIT BREAKS BASED ON CORE FROM WELL 20091.



STATE PLANE COORDINATE:	TOTAL DEPTH (FT): 58.0	GROUND ELEVATION (FT):	5946.85	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH: 750059.98	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	21191
EAST: 2087598.92	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/13/92	

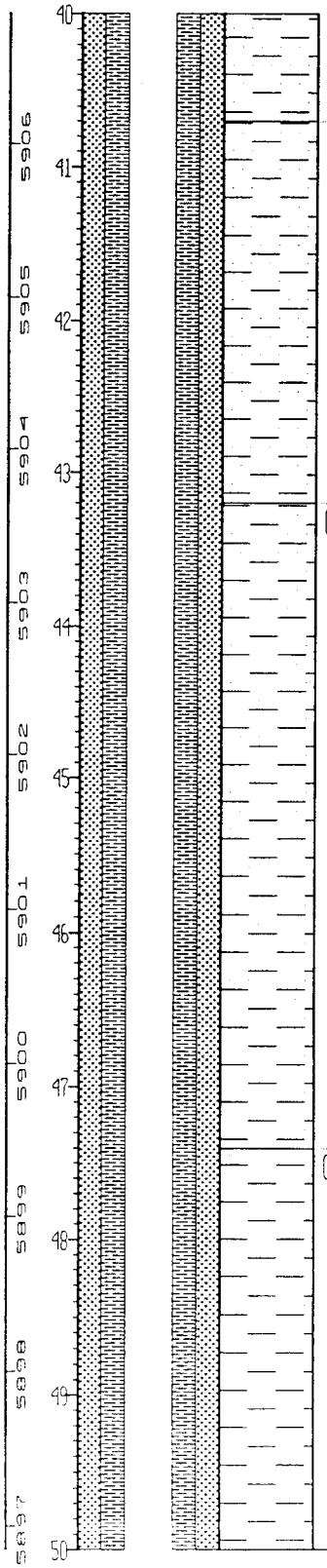
REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL: 29.0 FT. - 25.5 FT.
WELL 21191 WAS REAMED. UNIT BREAKS BASED ON CORE FROM WELL 20091.

CHEMICAL SAMPLE / GRADATIONAL SA	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/ INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					5916	30				
						31				
					5915	32			CLAYSTONE	Claystone with some sand.
					5914	33				
					5913	34				
					5912	35			CLAYSTONE	Claystone with some silt.
					5911	36				
					5910	37				
					5909	38			CLAYEY SANDSTONE	Clayey Sandstone with some silt
					5908	39			CLAYEY SANDSTONE	Clayey Sandstone with some silt
					5907	40				

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 58.0	GROUND ELEVATION (FT):	5946.85	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	750059.98	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	21191
EAST:	2087598.92	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/13/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL: 29.0 FT. - 25.5 FT.
WELL 21191 WAS REAMED. UNIT BREAKS BASED ON CORE FROM WELL 20091.

CHEMICAL SAMPLE
GRADATIONAL SA.
DEPTH
SAMPLE NUMBER
SAMPLE GRAIN SIZE (0% 50% 100%)
PERCENT RECOVERY (0% 100%)
RECOVERY/INTERVAL
DATUM(FT)
DEPTH(FT)
WELL OR PIEZOMETER CONSTRUCTION
LITHOLOGY
UNIFIED SOILS CLASSIFICATION OR ROCK TYPE
DESCRIPTION



CLAYEY SANDSTONE: Clayey Sandstone with some silt

CLAYEY SANDSTONE: Clayey Sandstone with some silt

CLAYEY SANDSTONE: Clayey Sandstone with some silt

STATE PLANE COORDINATE:		TOTAL DEPTH (FT): 58.0	GROUND ELEVATION (FT):	5946.85	PROJECT NUMBER:	OU2/RI	LOG OF BORING NUMBER:
NORTH:	750059.98	AREA: NE TRENCHES	CASING DIAMETER (IN):	2.0	GEOLOGIST:	J.P. O'BRIEN	21191
EAST:	2087598.92	LOCATOR NUMBER: H14	BOREHOLE DIAMETER (IN):	10.0	DATE DRILLED:	04/13/92	

REMARKS: HOLLOW-STEM AUGER. BENTONITE SEAL: 29.0 FT. - 25.5 FT.
WELL 21191 WAS REAMED. UNIT BREAKS BASED ON CORE FROM WELL 20091.

CHEMICAL SAMPL. / GRADATIONAL SAM.	SAMPLE NUMBER	SAMPLE GRAIN SIZE (0% 50% 100%)	PERCENT RECOVERY (0% 100%)	RECOVERY/INTERVAL	DATUM (FT)	DEPTH (FT)	WELL OR PIEZOMETER CONSTRUCTION	LITHOLOGY	UNIFIED SOILS CLASSIFICATION OR ROCK TYPE	DESCRIPTION
					5896	50				
						51				
					5895	52				CLAYEY SANDSTONE: Clayey Sandstone with some silt.
					5894	53				
					5893	54				
					5892	55				
					5891	56				
					5890	57				
					5889	58				Total depth at 58.0 ft
					5888	59				
					5887	60				

574/574