

MAJOR DIVISIONS			GRAPH SYMBOL	LETTER SYMBOL	LETTER DESCRIPTIONS	
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	Well-graded gravels, gravel-sand mixtures, little or no fines	
				GP	Poorly graded gravels, gravel-sand mixtures, little or no fines	
		MORE THAN 60% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	Silty gravels, gravel-sand-silt mixtures
					GC	Clayey gravels, gravel-sand-clay mixtures
	MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	SAND AND SANDY SOILS	CLEAN SAND (LITTLE OR NO FINES)		SW	Well-graded sands, gravelly sands, little or no fines
					SP	Poorly graded sands, gravelly sands, little or no fines
MORE THAN 50% OF COARSE FRACTION PASSING NO. 4 SIEVE		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	Silty sands, sand-silt mixtures	
				SC	Clayey sands, sand-clay mixtures	
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity	
				CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays	
				OL	Organic silts and organic silty clays of low plasticity	
	MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	Inorganic silts, micaceous or diatomaceous fine sand or silty soils
					CH	Inorganic clays of high plasticity, fat clays
					OH	Organic clays of medium to high plasticity, organic silts
HIGHLY ORGANIC SOILS				PT	Peat, humus, swamp soils with high organic contents	

Note: For coarse soils: gravels and sands with 5 to 12 percent fines require dual symbols. Soils 15 percent sand or gravel, add with sand or with gravel. For fine grained soils: If 15 to 29 percent sand or gravel add with sand or with gravel or name. If 30 percent sand or gravel add sandy or gravelly to group name.

UNIFIED SOIL CLASSIFICATION SYSTEM

Adopted by Corps of Engineers
and Bureau of Reclamation, January, 1952,
in collaboration with A. Casagrande, PhD.

BORING LOCATION 

Project: _____ Project No: _____
 Date Drilled: _____ Date Completed: _____
 Logged By: _____
 Water Elevation (ft.): _____
 Date Measured: _____
 Total Depth (ft.): _____
 Diameter (in.) _____
 Abandonment Information: _____

Boring ID: _____
 Northing: _____ Easting: _____
 Ground Surface Elevation (ft.): _____
 Datum: NGVD (1988)
 Drilling Contractor: _____
 Drilling Method: _____

DEPTH (FEET)	GRAIN SIZE			MOISTURE CONTENT	BLOWS (6 IN.)	SAMPLE TYPE*	SAMPLE RECOVERY	USCS/ASTM CLASSIFICATION	GRAPHIC LOG	LITHOLOGIC DESCRIPTION (USCS name; color; size and angularity of each component or plasticity; density; moisture content; additional facts)	ELEVATION (FEET)
	% GRAVEL	% SAND	% FINES								
1											
2											
3											
4											
5											

- * C California Split Spoon Sampler (2.5" I.D.)
- S Standard penetration test sampler
- c Cuttings
- ▼ Elevation of ground water



DEPTH (FEET)	GRAIN SIZE			MOISTURE CONTENT	BLOWS (6 IN.)	SAMPLE TYPE*	SAMPLE RECOVERY	USCS/ASTM CLASSIFICAT.	GRAPHIC LOG	Project: _____ Project No: _____	ELEVATION (FEET)
	% GRAVEL	% SAND	% FINES							Boring ID.: _____	
5										LITHOLOGIC DESCRIPTION (USCS name; color; size and angularity of each component or plasticity; density; moisture content; additional facts)	
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											

SURFACE SOIL SAMPLE LOG FORM

AREA #/NAME _____

SAMPLE I.D. _____

SAMPLE COLLECTION DATE _____

SAMPLE COLLECTION TIME _____

SAMPLE COLLECTED BY _____

WEATHER CONDITIONS _____

FIELD USCS DESCRIPTIONS _____

MAJOR DIVISIONS: OH CH MH OH CL ML SC
 SM SP SW GC GM GP GW

QUALIFIERS: TRACE MINOR SOME; SAND SIZE FINE MEDIUM COARSE

MOISTURE: DRY MOIST WET

MUNSELL COLOR _____

SAMPLE CONTAINERS (NUMBER AND TYPE) _____

ANALYSES: _____

MARK INDIVIDUAL GRAB SAMPLE LOCATIONS IN GRID

FIELD CHANGE REQUEST FORM
UNC Northeast Churchrock Mine Removal Site Evaluation

Task Name: _____

FCR No: _____

Requested By: _____

Date: _____

Task or activity description:

Affected Plan or Procedures:

Requested Variation:

Justification:

Comments:

Approved by: _____ Date: _____
MWH Project Manager

Authorized by: _____ Date: _____
UNC Project Manager

Approval/Concurrence: _____ Date: _____
EPA Project Manager

CORRECTIVE ACTION REQUEST FORM
UNC Northeast Churchrock Mine Removal Site Evaluation

Task Name: _____

CAR No: _____

Requested By: _____

Date: _____

Observation

Minor

Major

Noncompliance with Work
Plan

Change to Work Plan

Client or Regulator Finding

MWH Finding

Audit Finding

Description of Findings:

Investigation Summary (including root cause analysis):

Corrective Action Description:

Approved by: _____ Date: _____

MWH Project Manager or Assistant Project Manager

Authorized by: _____ Date: _____

UNC Project Manager

Approval/Concurrence: _____ Date: _____

EPA Project Manager