

Appendix C. Soil Lithology and ASTM Classifications					
Location	General Description	Shallow (2" to 10" bgs)		Deep (2' to 3' bgs)	
		ASTM Code	Description	ASTM Code	Description
BGS-A1-01	Relocated 180' SW to stay off private property.	SW	Well graded sand w/gravel (<10%), mod compacted/cemented.	SW	Well graded sand w/gravel (15-20%), fine-med gravel 1/2-1" rhyolite rock.
BGS-A1-02	Coarse gravel in silty sand matrix. Calcite coating on gravel but not a distinct caliche layer in mix.	SW	Well graded silty sand w/some gravel to 8", coarse gravel starts at 8".	GW	Coarse gravel 1-5" sub-rounded (80% gravel) in silty sand matrix, calcite coating on gravel surface.
BGS-A1-03		SW	Well graded sand w/minor gravel, hard, well cemented, reddish brown color.	GW	Med-coarse gravel in sand matrix, not compacted. Gravel (~40%), sand (~60%). Gravel rock is crystal rich rhyolite w/biotite, feldspar, quartz crystals.
BGS-A1-04	Location 700-1000' down slope from firing range/bow range and haul road.	SW-SM	Hard, compacted, mod-well graded silty sand w/gravel.	SW	Mod-well graded, fine-med sand w/gravel and cobbles/boulders (to 20"). ~20% gravel/rock. Softer, less compacted. Rocks composed of rhyolite volcanics.
BGS-A1-05	Location is far down alluvial fan, next to identified archeology site. Repositioned sample location ~ 150' east to remain outside marked archeological site boundary. Soil is very sandy, minor gravel, loose. 0-6" bgs loose dry surface soil w/organics. 6-8" bgs wk-mod cemented, mod firm silty sand. 18-36" bgs loose mod-poorly graded sand w/minor gravel.	SP	Mod graded silty sand, mod firm/cemented, no caliche. Reddish brown soil.	SP	Mod-poorly graded sand w/fine-coarse sand, minor gravel (<10%) up to 1/2". Very loose, reddish brown. No caliche.
BGS-A1-06	Mod-poorly graded fine-med sand, well cemented from 4-24" w/caliche filling in root casts. Some gravel lenses at 20-30" in localized areas of excavation, but not continuous horizon.	SP	Poorly graded fine-med sand w/minor gravel. Caliche zone, mod-well cemented, firm.	SP	Mod-poorly graded sand w/minor gravel, not much caliche at this depth, mod firm, reddish brown. Gravel pieces are crystalline volcanic (rhyolite?).
BGS-A1-07	Adjust position to ~100' west of planned location to stay off private property.	SW	Silty sand w/minor gravel. Organic horizon at 0-7", compacted soil; less organic material at 7-10".	SW	Silty sand w/minor gravel, hard compacted soil. Roots visible at 3'.

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BGS-A1-08	Adjust position to ~100' west of planned location to stay off private property.	SW	Silty sand w/minor gravel and organic roots, no clay, med-dark brown, very little moisture. Organic horizon 0-8"	SP	Sand, fine-medium, poorly graded w/ minor silt (less than shallow) and minor gravel to 1/2".
BGS-A1-09	Very sandy location near foothills of mountains.	SP	Fine-med, poorly graded sand w/minor gravel to 1/2".	SP	Fine-med, poorly graded sand w/ mod. gravel to 1/2", gravel, <5% silt, 80% sand, 15% gravel.
BGS-A1-10		SP	Fine-med sand, poorly graded, uncompacted, little-no gravel.	SW	Med-coarse gravel lens from 24-26", sand w/ med gravel from 26-36", well graded. Sample collected primarily from 26-36" sand interval
BGS-A1-11		SP	Poorly graded sand (fine-med) w/minor silt and gravel to 1". Organic horizon from 0-8" is not well defined. Dry, some roots.	SP	Poorly graded sand (med) with some gravel from 1/8" to 1", rounded to sub-angular. Moderately compacted but breaks w/impact
BGS-A1-12		SP	Fine-med sand w/little silt, minor gravel, some roots.	SW	Fine-med sand, well graded, no silt. Gravel horizon at 2-2.5' interval w/coarse angular gravel to 2".
BGS-A1-13	Well graded sand from 0-30" bgs, gravel/sand mixture from 30-40" bgs w/angular gravel to 3" diam. Plant roots to 30" bgs	SW	Silt to med sand, well graded w/trace angular gravel (5%) to 1/2", dense, light brown, dry.	SW	Silty to med sand, well graded w/angular gravel (30%) to 3" diameter, med dense, med brown, dry.
BGS-A1-14	Location is far down alluvial fan, less gravel, more silt and sand. Soil is generally pretty loose, uncemented. Distinct caliche zone at 24-30" bgs, small gravel lenses at 12-18" bgs and 36"+ bgs.	SW	Well graded silty-sand w/little-no gravel, weakly cemented, mod firm, reddish-yellow brown.	SW	Well graded silty sand w/minor gravel in small lenses. 6" of caliche at 24-30" mos. Firm but not too hard, reddish brown.
BGS-A1-15	Generally silty to med sand w/trace angular gravel, brown, dry. Angular gravel layer from 16" bgs to 36" bgs. Plant roots from 0" to 36" bgs	SW and SP	Silty to fine sand, well graded and poorly graded silty sand, trace angular gravel to 1/2" (10%), very dense, dry, reddish brown.	GW	Sand and gravel mixture (50-50), well graded w/angular gravel to 2", dense, dry, light brown

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BGS-A1-16	Generally very sandy soil w/gravel lenses.	SP	Loose unconsolidated sand (fine-coarse), moderate graded, w/minor gravel (5-10%)	SP	Loose, mod graded sand w/fine-med gravel lenses (0.5-2").
BGS-A1-17	Generally coarse gravelly soil with silty sand matrix. 80% gravel sized 1/2-4".	GW	Well graded gravel (~50%) in silty sand matrix.	GP	Coarse gravel lens from 28-38" bgs with cobbles up to 4". Caliche in matrix.
BGS-A1-18	Med-coarse gravel in well graded matrix, not a clearly defined gravel horizon but just a jumble. Some caliche in matrix starting at 16".	GW	Well graded gravel in silty sand matrix.	GW	Coarse gravel and cobbles to 4", rhyolite, in silty sand matrix.
BGS-A1-19	Location 20' north of cat scrape prospect pit.	SW	Well graded sand, fine and coarse sand w/some gravel.	SW	Well graded sand w/ gravel to 2" in fine sandy matrix. Caliche layer at 34".
BGS-A1-20	Location between haul road and mine. Soil very rocky w/ up to 12" boulders. Soil smells musty, possibly high in organic content.	GW	Well graded sandy gravel, full range of particle size from fine to gravel. Organic rich.	GW	Well graded gravel, same as shallow but more gravel. Caliche appears at 36" (not included in sample).
BGS-A1-21	Generally silty to med sand w/trace angular gravel, med brown, dry, dense.	SW	Silty to fine sand, well graded w/trace gravel to 1/2" (10%), very dense, reddish brown, dry.	SW	Fine to med sand, well graded w/trace gravel to 2" (20%), med dense, brown, dry.
BGS-A1-22	Generally gravel in sandy matrix entire 3". Some horizontal bedded gravel lenses starting at 2.5' bgs.	GW	Poorly sorted, well graded gravel in silty sand matrix, gravel to 2" (40%)	GW	Med gravel to 2" in lenses, subrounded (60%), brown.
BGS-A1-23	Generally very gravelly in sand matrix med gravel to 2" dia.	GW	Well graded gravel to 2" diameter in sandy matrix. 60% gravel, 40% sand matrix.	GW	Very well graded, med sized gravel to 2", sub-rounded. 60-70% gravel in silt/sand matrix.
BGS-A1-24	Location ~50-80' downhill from cat scrape prospect pit.	SP-SM	Dense sand, compacted, cemented, hard. Sand (75%) w/fine sand/silt and minor large gravel/cobble to ~12". Sandy loam.	SW	Looser sand w/ some fines and some gravel. Sand (60%), silt (<10%), gravel (15%).
BGS-A1-25		SW-SM	Well graded silty sand w/ some gravel. Silt (25%), fine-med sand (50%).	GW	Med-coarse gravel (1/2-3") in silty sand matrix. Caliche coating on gravel and in matrix. Gravel (85%) matrix (15%)

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BGS-A1-26	Generally silty to fine sand w/ trace igneous rock. Plant root to 10" bgs.	SP	Poorly graded silty sand w/trace volcanic gravel to 2" (10%), med dense, med dark brown.	SW	Well graded silty to coarse sand w/trace volcanic gravel (10%), dense, reddish brown, dry.
BGS-A1-27	Adjacent to mine fence near Tibbals waste incinerator. Gravel lens from 0-2' bgs.	GW	Well graded sandy gravel w/silt. Gravel lens from 1/2"-3" in silt/sand matrix. Very rocky and hard packed, reddish brown soil.	SP	Mod-poorly graded sand w/ gravel ¼-1"
BGS-A1-28	Generally san and gravel mixture w/angular gravel from ½-2", loose to med density. Less gravel in top foot.	SW	Silty to med sand, well graded w/trace coarse sand, organic content, no gravel, reddish brown, very dense, dry.	GP	Large angular gravel and thin layers of caliche w/fine to med sand (40%) loose, dry.
BGS-A1-29	Generally, sand w/gravel to 1" dia. Igneous rock. Plant roots to 12" bgs.	SW	Silty to fine sand, well graded w/trace gravel to ½" (igneous), dense, reddish brown, dry.	GP	Angular gravel, thin layers of caliche w/fine to med sand (40%), med dense, dry.
BGS-A1-30	Location in small, dry drainage ditch ~50-80' uphill from cat scrape exploration pit.	GP	Med-coarse gravel 1/2-3" (80%) in silty sand matrix. Rock is unalt. rhyolite	GP	Med-coarse gravel (80%) in silty sand matrix w/ minor caliche.
BGS-A1-31	Location ~100' downhill from cat scrape exploration pit.	SW	Well graded silt (15%), sand (40%) and gravel (40%).	GP	Coarse gravel (80%) w/sand and silt matrix. White caliche in soil matrix and coating on gravel. Gravel made up of rhyolite volcanic w/quartz and, feldspar crystals.
BGS-A1-32		SP	Very sandy, fine-med sand, no silt, minor gravel < 10%, size <1/2". Very loose, unconsolidated, poorly graded.	SP	Very poorly graded med sand w/ 15-20% gravel. Poorly cemented discontinuous caliche layers at 2-3'.
BGS-A1-33	Generally sand and gravel mixture w/gravel to 2" dia., caliche type rock, plant roots to 20" bgs.	SW	Silty to fine sand, well graded w/little coarse sand (15%) and trace gravel (5%) to 1" dia. Loose, reddish brown, dry.	GP	Angular gravel and caliche w/fine to coarse sand (30%), dense, dry, med brown.
BGS-A1-34	Generally sand and gravel mixture with caliche layers, gravel to 2" (igneous).	SW	Silty to fine sand, well graded, w/trace angular gravel, very dense reddish brown, dry.	GP	Gravel and caliche, angular to 3" w/some silty to med sand, med density, med brown, dry.
BGS-A1-35	Generally, sand and gravel mixture w/ 4" organic topsoil in pockets, plant roots to 5" bgs.	SP	Poorly graded silty sand and sandy silt w/trace gravel angular (5%), loose, dark brown, dry.	SW	Well graded silty to coarse sand w/angular pebbles and gravel from ¼" to 4" dia, loose, med brown, dry.

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BGS-A1-36	Generally, sand and large angular gravel mixture w/plant roots to 36" bgs.	GW	Angular gravel from ½" to 6" w/poorly graded sand-silty (50/50), loose, med brown, dry.	SW	Well graded silty to coarse sand w/angular pebbles and gravel (20%) from ¼-2", loose, med brown, dry.
BGS-A1-37	Sample location was on a steep slope, relocated ~150' south for safety. Generally, sand and gravel mixture w/silt near top 0-10" bgs and increasing sand at depth. Color darker from 2-3' bgs w/ organic material. Plant roots at 2.5' bgs.	SW/GW	Well graded silty to coarse sand and well graded, porous volcanic gravel from ½ to 1" dia w/pebbles, loose, dark brown, dry.	SW	Well graded fine to coarse sand and pebbles w/some angular gravel (25%), dense, various color sand and pebbles, gray and white rock, dry.
BGS-A2-38	Generally, sand from 0-12" bgs, sand/gravel from 12-40" bgs, plant roots to 36" bgs.	SP	Poorly graded silty sand w/trace angular gravel to ½" (5%), loose dark brown, dry.	SW	Well graded silty to med sand w/angular gravel to 3" dia (30%), loose, med brown, dry.
BGS-A2-39	Generally sand and gravel mixture-granite gravel, angular. Silty sand in top foot, fine to med sand below. Plant roots to 3' bgs.	SP	Poorly graded silty sand w/angular granite gravel (25%) to 2" dia, loose, reddish brown.	GP	Angular gravel and igneous rock/gravel and fine to med, well sorted sand (50-50), gravel to 4" dia, loose, med- brown, dry.
BGS-A2-40	Generally, sand and gravel mixture, angular gravel to 3" dia. Plant roots to 36" bgs.	SP	Poorly graded silty sand w/ angular gravel to 2" dia (10%), loose, reddish brown, dry.	SW	Well graded silty to med sand w/angular gravel to 2" dia (30%), loose, med brown, dry.
BGS-A2-41	Generally, sand and gravel mixture w/increasing gravel at depth and gravel layer at 3' bgs, plant roots to 2.5' bgs.	SP	Silty sand, poorly graded w/trace angular gravel (50%) to ½" dia, loose, light brown, dry.	GW	Angular gravel, well graded from ½ to 2" w/pebbles and well graded fine to med sand (40%), loose, med brown, dry.
BGS-A2-42	Generally sand w/little gravel from 0" to 2' bgs and gravel w/some sand from 2'-3.5' bgs Plant roots to 2.5' bgs.	SW	Well graded silty to coarse sand w/trace angular gravel (5%) to ½" dia, loose, med brown, dry.	GW	Well graded silty to coarse sand (30%) and well graded gravel from ½ to 2" angular w/pebbles, loose, med brown, dry. Note: Observed pockets and layers of red-brown (iron stained?) sand and gravel.
BGS-A2-43	Generally, silty sand and silt from 0-8" bgs, sand and gravel mixture from 8"-1.5' bgs, mostly gravel w/some sand from 1.5 to 3.5' bgs, plant roots to 3' bgs.	SP	Silty sand, poorly graded w/trace gravel (5%) angular to ½" dia, med dense, dark brown (organic material?), dry.	GW	Angular gravel, well graded from ½ to 2" dia w/pebbles and some fine to med sand (20%), med dense, med brown, dry.

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BGS-A2-44	Generally, silty sand and silt from 0-1' bgs and sand and gravel mixture from 2-3' bgs, plant roots 2' bgs.	SP	Silty, poorly graded sand w/trace angular gravel (5%) to ½" dia, med dense, med brown, dry.	SW	Well graded silty to coarse sand w/ pebbles and some angular gravel (20%) from ½ to 2" dia, loose, multi-colored, dry.
BGS-A2-45	Generally, sand throughout profile w/small pockets of caliche and some gravel, plant roots 3' bgs.	SP	Poorly graded silty sand w/trace angular gravel (10%), med dense, reddish brown, dry.	SP/GP	Poorly graded silty sand w/angular gravel (40%) and some coarse sand (10%), loose, reddish brown, dry
BGS-A2-46	Generally, relatively homogeneous silty fine sand top to bottom w/no gravel and decreasing density w/depth. Caliche layer starting at 3' bgs, solid and very dense, plant roots to 3' bgs.	SP	Silty sand, poorly graded, dense, med brown, dry.	SP	Silty sand poorly graded, loose, med brown, dry. Note: The absence of any pebbles suggest this is all wind blown dust (dune)
BGS-A2-47	Generally, relatively homogeneous silty sand top to bottom w/no gravel or pebbles, med density throughout, plant roots to 3' bgs.	SP	Silty fine sand, poorly graded, med dense, med brown, dry.	SP	Silty fine sand, poorly graded, med dense, med brown, dry.
BGS-A2-48	Well graded sandy gravel (¼" to ½") decomposed granite, very dry and dusty.	GW	Well graded sandy gravel, decomposed granite.	GW	Same generally, small gravel (¼" to ½") but some larger pieces 2-3", No significant caliche.
BGS-A2-49	Loose sandy gravel, well graded, narrow caliche zone (6" wide) at 24-30" bgs.	GW	Loose sandy gravel w/gravel ¼-1/2", well graded, med brown	GW	Loose sandy gravel w/some caliche at 24-30", coarse gravel up to 3"
BGS-A2-50	Loose sandy gravel w/several large granite boulders (+18") which are weathered and decomposing (the backhoe cut it in half). Some caliche at 18-36" bgs, not distinct but appears focused around granite boulders.	GW	Loose sandy gravel, well graded w/gravel ¼-1/2" of granite, med brown	GW	Loose sandy gravel w/gravel up to 3" dia. and crystals of quartz and feldspar from decomposed granite. Did not sample granite boulder that is shown in photo, collected from area that had more organic soil.
BGS-A2-51	Coarse, loose gravel 1-4" dia., not much sand or other fines. Caliche zone at 10-16" bgs and some caliche in matrix to 36" bgs. Gravel is primarily granodiorite and granite.	GW	Coarse gravel in some sand, gravel to 4", med brown w/some calcite coating on rocks.	GW	Coarse gravel w/some silty sand in matrix gravel ~80%. Calcite coating on rocks

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BGS-A2-52	Generally, well graded sand top to bottom, with trace small gravel. Plant roots to 10''.	SW	Well graded silty to coarse sand with trace angular pebbles, loose, med brown, dry.	SW	Well graded silty to coarse sand with trace angular pebbles, loose, med brown, dry.
BGS-A2-53	Very rocky w/ a lot of caliche at 2-3' bgs. Location is close to rocky hill and bedrock is probably not deep here. Rock/gravel is dark volcanic material.	GW	Very well graded silt-sand-gravel. Loose, some caliche, med brown.	GW	Coarse gravel, rocky starting at ~ 20'' w/abundant caliche filling matrix around rocks. >80% rocks and decomposed granite.
BGS-A2-54	Rocky, coarse gravel w/intrusive and volcanic rocks. Loose very well graded sandy gravel, med brown. Some caliche at 36-38'' bgs.	GW	Well graded sandy gravel w/gravel to 2'' dia.	GW	Well graded coarse gravel to 4'' dia. in sandy matrix. Minor caliche near bottom of interval. Gravel consists of intrusive and volcanic rocks.
BGS-A2-55	VERY ROCKY-not really any true soil to sample but there is some fine material and caliche along fracture and root zones. The area is basically decomposing/weathered bed rock of metamorphic origin. Gray fine grained rock of probable volcanic/ intrusive origin but grain structure is altered.	GW	Weathered bedrock w/some caliche and organics in root zone. ~ 95% rock. Sample tried to minimize large rocks and collected caliche areas.	GW	Less weathering and fractured rock w/some caliche areas.
BGS-A2-56	Sandy gravel w/large pieces of decomposing granite. 0-12'' bgs-well graded sand w/little-no gravel, well cemented, med hard; >12'' bgs is gravel in sand matrix, gravel generally 1/4'' to 1/2'' w/some large pieces to 3-4'' dia. Weak caliche zone at 24-36'' bgs	SW	Well graded sand, cemented/compacted, med hard, little or no gravel, brown-reddish brown	GW	Gravel (1/4'' to 3'') in silty sand caliche matrix. Loose, large pieces of decomposing granite
BGS-A2-57	Sandy soil w/ fine gravel to 1/4'', soft and loose near surface, well cemented, strong caliche zone at 24-36'' bgs.	SW	Well graded sand and gravel (<1/4''), uncemented, loose, med brown.	SW	Well cemented caliche zone in well graded sand and gravel (<1''). Gravel is intrusive granite/granodiorite.
BGS-A2-58	Dense compacted soil to 24'' bgs, caliche at 24-30'' bgs, loose sandy soil 24-36'' bgs. Location near top of alluvial fan (not in drainage).	SW	Dense compacted silty sandy soil. Med graded, some moisture holding soil together, reddish brown.	SW	Loose sandy soil, same composition as shallow sample but not cemented. Caliche layer visible at 24-30'', white caliche replacement of roots, little or no gravel.

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BGS-A2-59	Location ~30' from drainage channel w/ several prospect pits and small mine dumps ~400-600' upstream. Soil very gravelly w/some large rocks up to 24" dia. Bedrock outcrop on opposite side of channel ~50' to the south.	GP	Poorly graded gravel in silty sand matrix. Gravel is angular ¼ to 3" dia. intrusive granodiorite rock, some roots.	GP	Same as shallow. Poorly graded gravel in silty sand, coarse gravel to 3".
BGS-A2-60	Loose sandy gravel, no distinct caliche layer, not very cemented/compacted.	SW	Loose sandy gravel (<1"), well graded, med brown, numerous roots. Soil very dry.	SW	Same as shallow. Larger gravel up to 3-4" dia., some calcium coating on rocks but no distinct caliche zone visible at 3' depth.
BGS-A2-61	Generally, sand and gravel mixture w/increasing angular gravel at depth, plant roots to 30" bgs.	SP	Poorly graded silty sand w/trace angular (10%) from ½-1", loose, light brown, dry.	GW	Well graded angular gravel from ½-1.5" w/pebbles and some fine sand (10%), loose, gray/white/black-gray rock, dry.
BGS-A2-62	Generally, sand and gravel mixture from 10" to 3' bgs w/increasing gravel at depth, plant roots to 2.5' bgs.	SP	Poorly graded silty sand w/trace angular gravel to ½" (5%), med dense, med brown, dry.	GW	Well graded fine to coarse sand (30%) w/pebbles and angular gravel (70%) from ½ to 1", loose, brown, dry.
BGS-A2-63	Generally, sand w/some gravel from 0-2', sand w/light caliche from 2-3' and soft sand from 3-3.5'. Plant roots to 20" bgs.	SP	Poorly graded silty sand w/trace gravel (5%) angular to ¾", med-dense, med brown, dry.	SP	Poorly graded silty sand w/trace angular gravel (10%), ½-4" dia, loose, med brown, dry.
BGS-A2-64	Generally, sand and gravel mixture from 0-2" bgs w/angular gravel, hard caliche layer from 2-3' bgs, large angular gravel from 3-3.5' bgs, plant roots to 12" bgs.	SP	Silty to fine sand w/angular gravel 1-3" dia (20%), dense, med brown, dry.	GW	Angular gravel 1-5" dia w/well graded fine to coarse sand (50/50), loose, med brown, dry.
BGA-A2-65	Location ~ 75-100' downhill from water tanks. Area is disturbed and surface vegetation has been cleared but excavation revealed native soil w/ "A" horizon and organic roots showing to ~10-12" bgs w/ coarse gravel underneath. Collected sample even though surface was disturbed.	GW	Sandy gravel mod-well graded, organics, reddish brown soil color, gravel to 3" dia. of intrusive granite/granodiorite source.	GP	Coarse gravel (80-90%) up to 4-6", slightly rounded, granite. Silty sand matrix. Some calcite coating on rocks but no distinct caliche zone.

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BGS-A2-66	Location relocate ~50-100' north to avoid area disturbed by gravel pit. Coarse gravel up to 4-6" dia. sub-rounded. No distinct caliche horizon but there is some calcite coating on gravel.	GW	Well graded silty sand and gravel w/minor roots and organics. Weak-mod cemented, med-darker brown.	GP	Poorly graded coarse gravel in silty sand matrix w/caliche in matrix and coating on rocks. Gravel 4-6" dia. (80%).
BGS-A2-67	Coarse gravel (70-80%) up to 4" dia. Caliche in matrix at 16-36" bgs.	GW	Well graded silt-sand-gravel.	GW	Coarse gravel ½ to 4" dia. of granite/grandiorite in caliche sandy matrix.
BGS-A2-68	Very loose and soft, very well graded silty sand and gravel, granite/ grandiorite rocks w/caliche coating. 0-10" bgs w/less gravel still well graded, smaller gravel to ½" dia.	SW	Well graded silty sand w/small gravel (~30%) to ½" dia.	GW	Med-crs gravel (~60%) to 3-4 sub angular, grandiorite in silty sand matrix. Very soft and loose. Caliche coating but not much in matrix.
BGS-A2-69	Loose mod graded sand w/minor gravel to ¼-1/2" dia. Gravel lens w/small gravel <1" dia. at 33" bgs. Different looking than other nearby samples because no coarse gravel. Location in bottom of shallow, wide drainage.	SW	Mod graded silty sand w/fine-crs sand w/little-no gravel. V. loose, uncemented, no caliche.	SW	Mod graded sand w/some fine gravel (20-30%) to 1/2" Minor caliche in matrix and on rocks but no distinct caliche horizon.
BGS-A2-70	Excavate pit at location marked by stake but the pit was solid bedrock. Backfilled and relocated to nearby area off of hill and it was also very rocky and unable to sample. Backfilled and relocated further uphill ~150' west of original stake. Shallow soils (0-8" bgs) silty sand w/minor gravel ¼-1/2"; 8-26" bgs -mod cemented silty sand w/gravel and decomposing boulders; 26" bgs -narrow band of very dark iron stained band in soil and rock, not sure of origin; deep soils (26-36" bgs) strong caliche zone/w abundant calcium in matrix and on rock. Gravel and decomposing bedrock not transported far from source.	SW	Silty sand w/some gravel. Orange-brown.	GW	Gravel and decomposing bedrock (70%) in strong caliche matrix/ Fe band crossed middle of sample zone.

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BGS-A2-71	Loose sandy gravel. Relocated ~150' west to remain on BLM land, west of fence line	SW	Silty sand w/ little-no gravel. Mod graded sand fine to coarse.	SW	Very well graded silty sand w/gravel (~30%). Loose uncemented. Minor caliche on gravel, small caliche horizon visible starting at 36" bgs.
BGS-A2-72	silty, sandy gravel w/horizontal zoning and numerous roots and organics. strong caliche zone at 30-36" bgs.	SW	Silty sand w/gravel rich organic, dk brown-red brown weakly cemented	GW	Coarse gravel 80% up to 5", decomposing granite some strong caliche in bottom at 30"
BGS-A2-73	0-14" bgs - organic rich silty sand med-dk brown. >14" bgs -coarse gravel w/some caliche coating but not significant in matrix.	SW	Mod-well graded silty sand, weakly cemented, some white caliche along roots.	GW	Coarse gravel (~ 75-80%) up to 4", granite/diorite
BGS-A2-74	> 8" bgs -coarse gravel w/large cobbles and boulders to 12" dia. including decomposing granite and granodiorite	SW	Mod-well graded sand w/some gravel to 2" dia, mod cemented, reddish brown.	GW	Coarse gravel, cobbles, and boulders (12" dia.) in sandy matrix, caliche in matrix.