

Table 1. Soil classification, including physical and chemical properties.

115 – Imperial-Glenbar silty clay loams (surface texture), 0 to 2 percent slopes

Physical Properties											
Texture	Glenbar wet 40%		Imperial, wet 40%		Holtville 10%					Meloland 10%	
Depth (Inch)	0"-13"	13"-60"	0"-12"	12"-60"	0"-17"	17"-24"	24"-35"	35"-60"	0"-12"	12"-26"	26"-71"
USDA ^a texture	Silty clay loam	Clay loam, Silty clay loam	Silty clay loam	Silty clay loam, Silty clay, clay	Silty clay	Clay, Silty clay	Silt loam, Very fine sandy loam	Loamy very fine sand, Loamy fine sand	Fine sand	Stratified loamy fine sand to silt loam	Clay, Silty clay, Silty clay loam
Classification	Unified	CL	CL	CL	CH, CL	CH, CL	CH, CL	ML	ML, SM	SM, SP – SM	CH, CL
	AASHTO	A-6	A-6	A-6	A-7	A-7	A-7	A-4	A-2, A-4	A-2, A-3	A-7
Liquid limit (range)		30-40	30-40	35-40	40-60	40-65	40-65	25-35	0-0	0-0	40-65
Plasticity index (range)		10-15	10-15	15-20	15-30	20-35	20-35	NP-10	NP	NP	20-40
Composition	Sand (%)	7	27	17	18	5	22	29	81	94	26
	Silt (%)	62	42	48	42	45	28	53	17	1	29
	Clay (%)	31	31	35	40	50	50	18	3	5	45
Moist bulk density (gm/cm ³)		1.45-1.55	1.40-1.50	1.45-1.55	1.45-1.55	1.35-1.45	1.35-1.45	1.40-1.50	1.50-1.60	1.60-1.70	1.35-1.45
Saturated hydraulic conductivity (µm/sec)		1.40-4.0	1.40-4.00	1.40-4.00	1.40-4.00	0.42-1.40	0.42-1.40	4.00-14.00	14.00-42.00	14.00-42.00	0.42-1.40
Available water capacity (inch/inch)		0.15-0.21	0.15-0.21	0.13-0.18	0.10-0.18	0.17-0.25	0.17-0.25	0.15-0.25	0.08-0.1	0.08-0.09	0.06-0.15
Organic matter (%)		0.0-1.0	0.00-0.5	0.0-1.0	0.0-0.5	0.50-1.0	0.5-0.8	0.0-0.5	0.0-0.0	0.5-1.0	0.0-0.5
Chemical Properties											
Cation exchange capacity (meq/100gm)		13-20	13-20	15-22	17-25	30-40	30-40	10-15	1.0-5.0	10-15	30-40
Soil reaction (pH)		7.9-8.4	7.9-8.4	7.9-8.4	7.9-8.4	7.4-8.4	7.4-8.4	7.4-8.4	7.4-8.4	7.4-8.4	7.4-8.4
Calcium carbonate, CaCO ₃ (%)		1-5	1-5	1-5	1-5	10-15	10-15	10-15	10-15	10-15	10-15
Salinity (mmhos/cm)		2.0-8.0	2.0-8.0	4.0-8.0	4.0-8.0	2.0-8.0	2.0-8.0	2.0-8.0	2.0-8.0	2.0-8.0	8.0-16.0
Sodium adsorption ratio		5-15	0-5	10-20	5-15	5-10	5-10	5-10	5-10	0-5	10-13
SAGBI rating & class ^b		(15 – 29) & 18 – Poor (https://sgma.water.ca.gov/webgis/?appid=SGMADDataViewer)									
CGS Geologic ^c		Type Q (https://maps.conservation.ca.gov/cgs/gmc/)									
Drainage class and Hydrologic soil group ^d		Moderately well drained with a hydrologic group (A)									

^a United States Department of Agriculture, National Resources Conservation Service

^b Soil Agricultural Groundwater Banking Index (suitability index for groundwater recharge on agricultural land based on deep percolation, root zone residence time, topography, chemical limitation, and soil surface condition) (<https://casoilresource.lawr.ucdavis.edu/sagbi/>)

^c Type Q belongs to Pleistocene-Holocene with general lithology as alluvium, lake, playa, and terrace deposits; unconsolidated and semi-consolidated.

^d Group A for soil having a good infiltration rate with low runoff potential when the soil is not protected by vegetation is thoroughly wet, and receive precipitation from long-duration storms