

Geophysical Themes

Geophysical rock properties – ROCKPROP New_entry: 26/09/2005

Name ROCKPROP
Description Rock property measurements (magnetic susceptibilities, densities and porosities) from hand samples, drill cores and rock outcrops.
Type Point
 Linked table GEODX.FLATSTRAT, LITHGROUP
 Linked theme

Note The attributes latitude and longitude should only be included when distributing the theme in a non-spatial format such as a spreadsheet or data table. In such cases, a datum should also be specified.

Object	Feature Class	Feature	Feature Definition	Attributes
Point	Rock	RPROP	Rock property data – magnetic susceptibility, density and porosity.	feature, ufi, siteid, sampleid, well_name, latitude, longitude, descript, lith_group, unitname, supergroup, group, formation, member, samp_type, samp_depth, samp_mass, magsus_ind, magsus_med, magsus_ave, magsus_max, magsus_min, magsus_std, surf_type, magsus_cor, magsus_mul, density_db, density_wb, density_g, porosity_a, porosity_t

Object	GA Field Name	NGDM	Attribute Type	Case	Format	Compulsory	Valid Values	Description of Field	Rules
Point	feature	Feature	12,12,C	upper	String	Yes	RPROP	Feature type	
	ufi	ObjectID	6,6,I	n/a	Integer	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a dataset. Populated by calculating it equal to RECNO when the dataset is complete
	siteid		16,16,C	mixed	String	No		Site id	
	sampleid		16,16,C	mixed	String	No		Sample id	
	well_name		254,254,C	mixed	String	No		Well name	
	latitude		11,11,N,7	n/a	Float	No	Decimal degrees		
	longitude		11,11,N,7	n/a	Float	No	Decimal degrees		
	descript		254,254,C	mixed	String	No		Sample and/or site description	
	lith_group	DominantLithGroup	50,50,C	lower	String	Yes	LITHGROUP authority table	Dominant lithological grouping	
	unitname	GeologicalUnitName	254,254,C	mixed	String	Yes	GEODX.FLATSTRAT authority table	The name of the stratigraphic unit	
	supergroup	Supergroup	254,254,C	mixed	String	No	GEODX.FLATSTRAT authority table	An assemblage of related groups, or of formations and groups, having significant lithological features in common	For granite bodies a supersuite is on the same hierarchy level as a supergroup
	group	Group	254,254,C	mixed	String	No	GEODX.FLATSTRAT authority table	The formal lithostratigraphic unit which includes two or more contiguous or associated formations with significant	For granite bodies a suite or complex is on the same hierarchy level as a group

								lithological features in common	
formation	Formation	254,254,C	mixed	String	No	GEODX.FLATSTRAT authority table		A formally differentiated assemblage of formations within a group	
member	Member	254,254,C	mixed	String	No	GEODX.FLATSTRAT authority table		A body of rock strata which is unified with respect to adjacent strata by consisting dominantly of a certain lithological type or combination of types or by possessing other unifying lithological features	For granite bodies a pluton is on the same hierarchy level as a formation
samp_type		20,20,C	upper	String	Yes	outcrop, hand_sample, drill_core		Sample type	
samp_depth		8,8,N,2	n/a	Float	No	meters		Distance down drill hole	
samp_mass		9,9,N,2	n/a	Float	No	grams		Mass of sample, an estimated value is OK	Use 999999.99 for in situ measurement
magsus_ind		8,8,I	n/a	Integer	No	SI units (x10 ⁻⁵)		Individual magnetic susceptibility measurement	
magsus_med		8,8,I	n/a	Integer	No	SI units (x10 ⁻⁵)		Median value of the magnetic susceptibility	
magsus_ave		8,8,I	n/a	Integer	No	SI units (x10 ⁻⁵)		Average value of the magnetic susceptibility	
magsus_max		8,8,I	n/a	Integer	No	SI units (x10 ⁻⁵)		Maximum value of magnetic susceptibility	
magsus_min		8,8,I	n/a	Integer	No	SI units (x10 ⁻⁵)		Minimum value of magnetic susceptibility	
magsus_std		8,8,I	n/a	Integer	No	SI units (x10 ⁻⁵)		First standard deviation of magnetic susceptibility	
surf_type		2,2,C	upper	String	No	flat_surface, irregular_surface, cut_surface, round_drill_core		Type of rock surface from which the magnetic susceptibility measurement was taken.	
magsus_cor		4,4,C	upper	String	No	yes, no		Has the magnetic susceptibility measurement been corrected for the type of rock surface?	
magsus_mul		8,8,N,2	n/a	Float	No			Correction multiplier used if the magnetic susceptibility measurement has been corrected for the type of rock surface.	Compulsory if yes for magsus_cor field
density_db		5,5,N,2	n/a	Float	No	gcm ⁻³		Dry bulk density. Dry rock mass divided by the bulk volume (includes rock material and pores).	
density_wb		5,5,N,2	n/a	Float	No	gcm ⁻³		Wet bulk density. Wet (saturated) rock mass divided by the bulk volume.	
density_g		5,5,N,2	n/a	Float	No	gcm ⁻³		Grain density. Density of rock material only.	
porosity_a		5,5,N,2	n/a	Float	No	%		Apparent porosity. Comprises all pore space interconnected to the surface of the sample. Occluded pores not taken into account.	
porosity_t		5,5,N,2	n/a	Float	No	%		Total porosity. Includes total void volume comprising interconnected and occluded pores.	