



Simulant Name: JEZ-1 Jezero Delta Simulant

Simulant Type: General Purpose

Reference Material: Jezero crater deltas

Publication: Cannon et al. 2019

Icarus 317, 470-478

Particle Size Range: 0-1 mm

Mean Particle Size: 38 microns



Mineralogy

Weight percent, as mixed.

Olivine	32.0
Plagioclase	16.0
Basaltic glass	13.5
Pyroxene	12.0
Mg-carbonate	11.0
Smectite clay	6.0
Mg-sulfate	2.4
Ferrihydrite	2.1
Hydrated Silica	1.8
Magnetite	1.1
Anhydrite	1.0
Fe-carbonate	0.8
Hematite	0.3

Bulk Chemistry

Weight percent,
as measured by XRF.

SiO ₂	44.2
TiO ₂	0.2
Al ₂ O ₃	11.3
Cr ₂ O ₃	0.3
FeO _T	9.5
MnO	0.1
MgO	25.9
CaO	3.5
Na ₂ O	1.9
K ₂ O	0.3
P ₂ O ₅	0.6
SO ₃	2.1
Total	100.0

Reflectance Spectrum

Data coming soon

Volatile Release Pattern

Data coming soon

Safety Information

See SDS for details. Primary hazard is dust inhalation; wear a respirator in dusty conditions.