



February 21, 2019

Utelite Corporation  
6375 Three Mile Canyon Road,  
Coalville, UT 84017

Attention: Mr. Jeff Barrick

**Subject: Qualifications Testing of Utelite Structural Fine Lightweight Aggregate**

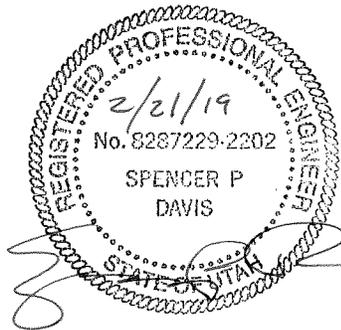
**Dear: Mr. Jeff Barrick**

Kleinfelder has performed testing, per your request, to verify the conformance of Utelite Structural Fine Lightweight Aggregate with ASTM C330-17 "Standard Specification for Lightweight Aggregates for Structural Concrete".

Upon review of the results, the Utelite Structural Fine Lightweight Aggregates meet C330-17 test requirements for the Calendar Year 2019.

See the following results.

Sincerely,



**Spencer Davis, PE**  
Senior Geotechnical Engineer

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## Fine Aggregates

SIEVE ANALYSIS			TEST RESULTS			
Sieve Size (ASTM C136)	Accum. % Passing	Specifications	Standard	CHEMICAL and PHYSICAL PROPERTIES	Results	Specification
9.5 mm (3/8")	100	100	ASTM C40	Organic Impurities	Color Comparison=	Lighter than Standard
4.75mm (No. 4)	99	85-100	ASTM C641	Staining Index	Stain Index=	20
2.36 mm (No. 8)	83	---	ASTM C114	Loss on Ignition	Loss, %=	0.210
2.00 mm (No. 10)	76	---	ASTM C142	Clay Lumps and Friable Particles	Fine Aggregate, %=	0.51
1.18mm (No. 16)	56	40-80	ASTM C29	Bulk Density: Dry Loose Condition	Unit Weight, lbs./cu.ft.=	58.6
0.600 mm (No. 30)	35	---	ASTM C29	Bulk Density: Saturated Loose Condition	Unit Weight, lbs./cu.ft.=	68.9
0.425mm (No. 40)	28	---	ASTM C1761	Absorption of Lightweight Fine Aggregate	*Absorption, %=	17.6
0.300mm (No. 50)	23	10-35	ASTM C127/128	Relative Density of Fine Aggregate (SSD)	Relative Density, (SSD)=	1.827
0.150mm (No. 100)	17	5-25	ASTM C88	Soundness of Aggregates (Sodium Sulfate)	Fine Soundness Loss, %=	2.6
0.075mm (No. 200)	13.9	---	ASTM C88	Soundness of Aggregates (Magnesium)	Fine Soundness Loss, %=	3.2

\*Absorption is calculated using a minimum soak time of 24-hours

