

145-884B-91X-CC (Piece 1, 8–12 cm)
 ROCK NAME: Aphyric basalt
 GRAIN SIZE: Fine-grained.
 TEXTURE: Intersertal tomicrolitic.

OBSERVER: KEL

WHERE SAMPLED: Near top of unit.

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	40		<1.0		Subhedral to anhedral.	Moderately altered.
Olivine Oxide	<1	<1	<0.1 <0.05		Subhedral. Subhedral to euhedral.	Completely altered.
SECONDARY MINERALOGY						
Clay	60	REPLACING/ FILLING				COMMENTS
Carbonate	<1	Olivine, groundmass, and vesicles Vesicles				Medium gray to light golden brown.
VESICLES/CAVITIES						
Vesicles	5	LOCATION	SIZE (mm) <1.5	FILLING Calcite and clay	SHAPE Round to subround	COMMENTS Partially infilled.

145-884E-1R-1 (Piece 9, 121–125 cm)
 ROCK NAME: Aphyric basalt
 GRAIN SIZE: Fine- to medium-grained.
 TEXTURE: Intergranular to subophitic.

OBSERVER: KEL

WHERE SAMPLED: 80 cm from top of flow.

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	1		1.0–2.0		Subhedral.	Slightly to moderately altered.
GROUNDMASS						
Plagioclase	40		<1.0		Subhedral.	Moderately to slightly altered.
Clinopyroxene	30		<1.0		Subhedral to anhedral.	Slightly to moderately altered.
Oxide	<1		<0.05		Euhedral to subhedral.	
SECONDARY MINERALOGY						
Clay	30	REPLACING/ FILLING				COMMENTS
		Olivine?, groundmass, and vesicles				Reddish brown.
VESICLES/CAVITIES						
Vesicles	<1	LOCATION	SIZE (mm) <1.0	FILLING Clay	SHAPE Round	COMMENTS Partially to completely infilled.

145-884E-1R-05 (Piece 20, 46–49 cm)
 ROCK NAME: Highly plagioclase-clinopyroxene phyric basalt
 GRAIN SIZE: Medium- to fine-grained.
 TEXTURE: Intergranular to ophitic.

OBSERVER: KEL

WHERE SAMPLED: Massive flow interior.

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	30		0.5–5.0		Subhedral.	Slightly altered, often contained by clinopyroxene.
Clinopyroxene	35		0.5–6.0		Subhedral to anhedral.	Slightly altered.
GROUNDMASS						
Oxide	<1		<0.8		Euhedral to subhedral.	
SECONDARY MINERALOGY						
Clay	35	REPLACING/ FILLING				COMMENTS
		Groundmass				Medium olive green to brown.

145-884E-2R-2 (Piece 1, 37-40 cm)

OBSERVER: KEL

WHERE SAMPLED: Massive flow interior.

ROCK NAME: Highly clinopyroxene-plagioclase phyric basalt

GRAIN SIZE: Medium- to fine-grained.

TEXTURE: Interganular to ophitic.

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	35		0.5-2.0		Subhedral.	Slightly to moderately altered, often contained by clinopyroxene.
Clinopyroxene	49		0.5-5.0		Subhedral to anhedral.	Slightly to moderately altered.
GROUNDMASS						
Oxide	1		<0.8		Euhedral to subhedral.	
SECONDARY MINERALOGY		REPLACING/ FILLING				COMMENTS
Clay	15	Groundmass				Bright green to medium olive green to brown.

145-884E-4R-4 (Piece 1A, 29-32 cm)

OBSERVER: KEL

WHERE SAMPLED: 30 cm from top of flow.

ROCK NAME: Sparsely plagioclase phyric basalt

GRAIN SIZE: Medium to fine.

TEXTURE: Intersertal.

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	1		0.5-4.0		Euhedral to subhedral.	Slightly to moderately altered.
GROUNDMASS						
Plagioclase	20		<0.5		Subhedral to anhedral.	Slightly to moderately altered.
Clinopyroxene	10		<0.5		Anhedral to subhedral.	Slightly to moderately altered.
Olivine		1	<0.5		Subhedral.	Completely altered.
Oxide	<1		<0.05		Euhedral to subhedral.	
SECONDARY MINERALOGY		REPLACING/ FILLING				COMMENTS
Clay	69	Olivine, groundmass, vesicles				Light green to medium olive green to reddish brown.

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE	COMMENTS
Vesicles	1		<1.0	Clay	Round	100% are infilled.

145-884E-4R-4 (Piece 3, 120-124 cm)

OBSERVER: KEL

WHERE SAMPLED: Massive flow interior.

ROCK NAME: Sparsely plagioclase-olivine phyric basalt

GRAIN SIZE: Fine- to medium-grained.

TEXTURE: Interganular to subophitic.

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	1		0.5-4.0		Euhedral to subhedral.	Slightly to moderately altered.
Olivine		1	0.5-1.0		Subhedral.	Completely altered.
GROUNDMASS						
Plagioclase	50		<0.5		Subhedral to anhedral.	Slightly to moderately altered.
Clinopyroxene	15		<0.5		Anhedral to subhedral.	Slightly to moderately altered.
Oxide	<1		<0.3		Euhedral.	
SECONDARY MINERALOGY		REPLACING/ FILLING				COMMENTS
Clay	34	Olivine, groundmass, vesicles				Light green to medium olive green to reddish brown.
VESICLES/ CAVITIES						
Vesicles	<1		<1.0	Clay	Round	100% are infilled.

145-884E-4R-6 (Piece 7, 64–67 cm)

OBSERVER: KEL

WHERE SAMPLED: Base of flow.

ROCK NAME: Sparsely plagioclase phyric basalt

GRAIN SIZE: Fine- to medium-grained.

TEXTURE: Intergranular to subophitic.

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS Plagioclase	1		0.5–5.0		Euhedral to subhedral.	Slightly to moderately altered.
GROUNDMASS Plagioclase	40		<0.5		Subhedral.	Slightly to moderately altered.
Clinopyroxene	39		<0.5		Subhedral to anhedral.	Slightly to moderately altered.
Olivine	5		<0.5		Subhedral.	Completely altered.
Oxide	1		<0.05		Euhedral.	
SECONDARY MINERALOGY	PERCENT	REPLACING/ FILLING				COMMENTS
Clay	20	Olivine, groundmass				Medium olive green to reddish brown.

145-884E-5R-4 (Piece 1C, 20–24 cm)

OBSERVER: KEL

WHERE SAMPLED: Base of flow.

ROCK NAME: Aphyric basalt

GRAIN SIZE: Fine- to medium-grained.

TEXTURE: Intergranular.

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS Plagioclase	<1		0.5–3.0		Euhedral.	Slightly altered and slightly zoned.
GROUNDMASS Plagioclase	30		<0.5		Subhedral to anhedral.	Slightly to moderately altered.
Clinopyroxene	40		<0.5		Anhedral to subhedral.	Slightly altered.
Oxide	<1		<0.05		Euhedral.	
SECONDARY MINERALOGY	PERCENT	REPLACING/ FILLING				COMMENTS
Clay	30	Olivine, groundmass, and vesicles				Medium brown.

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE	COMMENTS
Vesicles	5		<5.0	Clay	Subround to irregular	100% are partially infilled.

145-884E-5R-6 (Piece 2, 21–24 cm)

OBSERVER: KEL

WHERE SAMPLED: 70 cm from top of massive flow.

ROCK NAME: Aphyric basalt

GRAIN SIZE: Fine- to medium-grained.

TEXTURE: Intergranular to subophitic.

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS Plagioclase	<1		0.5–6.0		Subhedral to euhedral.	Slightly to moderately altered, slightly zoned.
GROUNDMASS Plagioclase	40		<0.5		Subhedral.	Slightly to moderately altered.
Clinopyroxene	35		<0.5		Subhedral to anhedral.	Slightly to moderately altered.
Oxide	<1		<0.05		Euhedral.	
SECONDARY MINERALOGY	PERCENT	REPLACING/ FILLING				COMMENTS
Clay	25	Groundmass and vesicles				Medium olive green to brown.

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE	COMMENTS
Vesicles	3		<3.0	Calcite and clay	Round	Partially to completely infilled.

145-884E-6R-2 (Piece 1A, 4-7 cm)
 ROCK NAME: Aphyric basalt
 GRAIN SIZE: Fine-grained.
 TEXTURE: Intergranular.

OBSERVER: KEL

WHERE SAMPLED: Interior of massive flow.

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	<<1		2		Subhedral.	Only one phenocryst seen, slightly zoned near rim.
GROUNDMASS						
Plagioclase	50		<0.5		Subhedral.	Slightly altered.
Olivine		30	<0.5	<0.5	Subhedral.	Completely altered.
Clinopyroxene	15		<0.5		Subhedral to anhedral.	Slightly altered.
Oxide	5		<0.1		Euhedral to subhedral.	
SECONDARY MINERALOGY						
Clay	PERCENT 30	REPLACING/FILLING Olivine				COMMENTS Dark olive green to brown.

145-884E-6R-3 (Piece 2A, 25-28 cm)
 ROCK NAME: Aphyric basalt
 GRAIN SIZE: Fine-grained.
 TEXTURE: Intergranular.

OBSERVER: KEL

WHERE SAMPLED: Interior of massive flow.

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	<<1		2.0		Subhedral.	Only two phenocrysts seen, slightly altered, slightly zoned near rim.
GROUNDMASS						
Plagioclase	50		<1.0		Subhedral.	Slightly altered.
Olivine		23	<0.5		Subhedral.	Completely altered.
Clinopyroxene	20		<0.5		Subhedral to euhedral.	Slightly altered.
Oxide	7		<0.4		Euhedral.	
SECONDARY MINERALOGY						
Clay	PERCENT 23	REPLACING/FILLING Olivine				COMMENTS Dark olive green to brown.

145-884E-9R-2 (Piece 1E, 136-139 cm)
 ROCK NAME: Sparsely plagioclase-clinopyroxene phyrlic basalt
 GRAIN SIZE: Fine- to medium-grained.
 TEXTURE: Ophitic to intergranular.

OBSERVER: KEL

WHERE SAMPLED: Interior of massive flow.

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Olivine		<<1	2.0		Subhedral.	Only two seen, moderately altered.
Plagioclase	1		1.0-7.0		Subhedral.	Slightly altered, slightly zoned near rim.
Clinopyroxene	1		1.0-2.0		Subhedral.	Slightly altered.
GROUNDMASS						
Plagioclase	40		<1.0		Subhedral to anhedral.	Slightly altered.
Clinopyroxene	40		<1.0		Subhedral to anhedral.	Slightly altered.
Olivine		15	<0.5		Subhedral to anhedral.	Completely altered.
Oxide	5		<0.2		Euhedral.	
SECONDARY MINERALOGY						
Clay	PERCENT 15	REPLACING/FILLING Olivine				COMMENTS Dark olive green to brown.

145-884E-10R-4 (Piece 1A, 0-4 cm)

OBSERVER: KEL

WHERE SAMPLED: Interior of massive flow.

ROCK NAME: Highly plagioclase-olivine-clinopyroxene phyric basalt

GRAIN SIZE: Medium- to fine-grained.

TEXTURE: Intergranular to ophitic.

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Olivine	2		0.5-2.0		Subhedral.	Slightly to moderately altered.
Plagioclase	20		0.5-7.0		Subhedral.	Slightly altered, some are slightly zoned near rim.
Clinopyroxene	2		0.5-1.0		Subhedral to anhedral.	Slightly altered.
GROUNDMASS						
Plagioclase	25		<0.5		Subhedral.	Slightly altered.
Clinopyroxene	30		<0.5		Subhedral to anhedral.	Slightly altered.
Olivine	8	8	<0.5		Subhedral.	Moderately to completely altered.
Oxide	5		<0.1		Euhedral.	
SECONDARY MINERALOGY						
Clay	8			REPLACING/ FILLING Olivine		COMMENTS Green to dark olive green to brown.

145-884E-10R-5 (Piece 3B, 77-80 cm)

OBSERVER: KEL

WHERE SAMPLED: 20 cm from top of pillow.

ROCK NAME: Highly plagioclase phyric basalt

GRAIN SIZE: Fine- to coarse-grained.

TEXTURE: Microlitic.

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Olivine		<<1	<2.0		Subhedral.	Completely altered.
Plagioclase	30		0.5-12.0		Euhedral to subhedral.	Slightly altered.
GROUNDMASS						
Plagioclase	10		<0.5		Subhedral to anhedral.	Slightly altered.
Oxide	1		<0.05		Euhedral.	
Mesostasis	39					
SECONDARY MINERALOGY						
Clay	20			REPLACING/ FILLING Olivine and groundmass		COMMENTS Golden brown.

145-884E-10R-6 (Piece 8C, 132-136 cm)

OBSERVER: KEL

WHERE SAMPLED: 10 cm from top of pillow.

ROCK NAME: Highly plagioclase phyric basalt

GRAIN SIZE: Fine- to coarse-grained.

TEXTURE: Microlitic.

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Olivine		<1	<2.0		Subhedral.	Completely altered.
Plagioclase	15		0.5-6.0		Subhedral to euhedral.	Slightly to moderately altered.
GROUNDMASS						
Plagioclase	20		<0.5		Subhedral to anhedral.	Microlites, slightly to moderately altered.
Olivine		5	<0.5		Subhedral.	Completely altered.
Oxide	1		<0.05		Euhedral.	
Mesostasis	20					
SECONDARY MINERALOGY						
Clay	44			REPLACING/ FILLING Olivine and groundmass		COMMENTS Medium gray to golden brown to brown.