



THIN SECTION: 330-U1377A-3R-1-W 68\_70-BILLET270-SLIDE 270 Piece No: Unit:1 OBSERVER:THIN SECTION:SLIDE 270  
 ROCK NAME: aphyric trachybasalt  
 WHERE SAMPLED: lava body  
 GRAINSIZE: fine grained  
 TEXTURE: aphyric

PRIMARY MINERALOGY	PERCENT ORIGINAL	REL. VOL. REPLACED	SIZE(mm)			MORPHOLOGY	VESICLE SPHERICITY	VESICLE Infilling [%]	COMMENTS
			min.	max.	mode.				
PHENOCRYSTS	0.5								
MICROPHENOCRYST									
plagioclase	0.5	10		1	0.5	laths[330]		sometimes centered zoning	
VESICLES	15		0.1	1.1	0.3		low[330]	70 smectite	
GROUNDMASS	84.5								
plagioclase	25	10		0.2	0.1	laths[330]			
glass	44.5	100						altered by smectite and brown clay	
opaque minerals	15			0.15	0.1	needle			

SECONDARY MINERALOGY	SIZE(mm)			REPLACING/FILLING vesicle	COMMENTS
	min.	max.	mode.		
smectite group (dioctahedral sn)					

STRUCTURE no structure in groundmass; vein (0.5 mm wide; goethite); highly altered;  
 COMMENTS

SUMMARY DESCRIPTION



THIN SECTION: 330-U1377A-3R-2-W\_2\_4-BILLET271-SLIDE 271 Piece No: Unit:2 OBSERVER:THIN SECTION:SLIDE 271  
 ROCK NAME: moderately olivine-phyric[EXP330] trachybasalt  
 WHERE SAMPLED: lava body  
 GRAINSIZE: fine grained  
 TEXTURE: moderately phyrlic

PRIMARY MINERALOGY	PERCENT ORIGINAL	REL. VOL. REPLACED	SIZE(mm)			MORPHOLOGY	VESICLE SPHERICITY	VESICLE Infilling [%]	COMMENTS
			min.	max.	mode.				
<b>PHENOCRYSTS</b>									
	8								
augite	0.8	0		2.8	1.6	subhedral			
olivine	5	100		2.8	1.2	euohedral to subhedral[330]			
<b>MICROPHENOCRYST</b>									
augite	0.2	0		0.8	0.6	subhedral			
plagioclase	1	0		0.9	0.6	laths[330]			sieve texture, centered zoning, clots
olivine	2	100		0.9	0.5	euohedral to subhedral[330]			
<b>VESICLES</b>									
	10		0.1	0.6	0.3		low and elongated[EXP330]	90	smectite-filled
<b>GROUNDMASS</b>									
opaque minerals	82			0.1	0.02	anhedral			
plagioclase	3			0.2	0.1	laths[330]			
glass	20	0							brown clay and smectite
	59	100							

SECONDARY MINERALOGY	SIZE(mm)			REPLACING/FILLING vesicle	COMMENTS
smectite group (dioctahedral sn)	min.	max.	mode.		

STRUCTURE no structure in groundmass  
 COMMENTS

SUMMARY DESCRIPTION



THIN SECTION: 330-U1377A-4R-2-W 45\_47-BILLET272-SLIDE 272 Piece No: Unit:3 OBSERVER:THIN SECTION:SLIDE 272  
 ROCK NAME: aphyric trachybasalt  
 WHERE SAMPLED: basalt lava lobe or pillow  
 GRAINSIZE: fine grained  
 TEXTURE: aphyric

PRIMARY MINERALOGY MICROPHENOCRYST	PERCENT ORIGINAL	REL. VOL. REPLACED	SIZE(mm)			MORPHOLOGY	VESICLE SPHERICITY	VESICLE Infilling [%]	COMMENTS
			min.	max.	mode.				
PHENOCRYSTS	0.5								
olivine	0.5	100		0.8	0.3	subhedral		replaced by brown clay	
VESICLES	2		0.1	0.5	0.2		low[330]	100 green clay and some carbonate	
GROUNDMASS	97.5								
plagioclase	10	10		0.4	0.08	microlite[330]			
glass	87.5	100						altered by clay	

SECONDARY MINERALOGY	SIZE(mm)			REPLACING/FILLING vesicle	COMMENTS
carbonate	min.	max.	mode.		
carbonate					also filled with green clay

STRUCTURE aligned bands of glass, mostly horizontal; several straight & cross-cutting veins (max.0.28 mm; irregulars 0.08 mm)  
 COMMENTS

SUMMARY DESCRIPTION



THIN SECTION: 330-U1377A-5R-2-W 123\_125-BILLET273-SLIDE 273 Piece No: Unit:3 OBSERVER:THIN SECTION:SLIDE 273  
 ROCK NAME: aphyric trachybasalt  
 WHERE SAMPLED: basalt lava lobe or pillow  
 GRAINSIZE: fine grained  
 TEXTURE: aphyric

PRIMARY MINERALOGY	PERCENT ORIGINAL	REL. VOL. REPLACED	SIZE(mm)			MORPHOLOGY	VESICLE SPHERICITY	VESICLE Infilling [%]	COMMENTS
			min.	max.	mode.				
PHENOCRYSTS	0								
MICROPHENOCRYST									
VESICLES	10		0.1	1.2	0.2		low[330]	60	filled by brown clay
GROUNDMASS	90								
glass	80	100							altered by brown clay and smectite
plagioclase	10	10		0.4	0.2	microlite[330]			

SECONDARY MINERALOGY	SIZE(mm)			REPLACING/FILLING	COMMENTS
	min.	max.	mode.		
clay				vesicle	brown clay

STRUCTURE COMMENTS glass bands, non-oriented thin section; irregular vein (0.2 mm)

SUMMARY DESCRIPTION



THIN SECTION: 330-U1377A-6R-2-W 13\_15-BILLET274-SLIDE 274 Piece No: Unit:4 OBSERVER:THIN SECTION:SLIDE 274  
 ROCK NAME: moderately olivine-phyric[EXP330] trachybasalt  
 WHERE SAMPLED: basalt lava lobe  
 GRAINSIZE: fine grained  
 TEXTURE: moderately phyrlic

PRIMARY MINERALOGY	PERCENT ORIGINAL	REL. VOL. REPLACED	SIZE(mm)			MORPHOLOGY	VESICLE SPHERICITY	VESICLE Infilling [%]	COMMENTS
			min.	max.	mode.				
PHENOCRYSTS	6								
olivine	6	100		2.1	1.2	subhedral		replaced by brown clay and smectite	
MICROPHENOCRYST VESICLES	3		0.3	3.2	1.2		low to elongate[330]	90 filled by carbonate and brown clay	
GROUNDMASS	91								
glass	36	100							
olivine	10	100		0.9	0.4	subhedral		replaced by brown clay and smectite	
plagioclase	40	5		0.3	0.2	microlite[330]		aligned	
augite	5	0		0.07	0.04	anhedral			

SECONDARY MINERALOGY	SIZE(mm)	REPLACING/FILLING	COMMENTS
	min. max. mode.		
STRUCTURE	sub-vertical moderate trachytic texture		
COMMENTS			

SUMMARY DESCRIPTION

THIN SECTION: 330-U1377A-6R-2-W 64\_66-BILLET275-SLIDE 275  
 ROCK NAME: moderately olivine-phyric[EXP330] trachybasalt  
 WHERE SAMPLED: basalt lava lobe  
 GRAINSIZE: fine grained  
 TEXTURE: moderately phyrlic

Piece No: Unit:5

OBSERVER:THIN SECTION:SLIDE 275

PRIMARY MINERALOGY	PERCENT ORIGINAL	REL. VOL. REPLACED	SIZE(mm)			MORPHOLOGY	VESICLE SPHERICITY	VESICLE Infilling [%]	COMMENTS
			min.	max.	mode.				
PHENOCRYSTS	16								
olivine	10	100		4.8	1.1	subhedral		altered by brown clay, smectite and carbonate	
MICROPHENOCRYST									
olivine	6	100		0.9	0.8	subhedral		altered by brown clay, smectite and carbonate	
VESICLES	10		0.9	9	1.2		moderate, rounded[330]	100 filled by brown clay, carbonate and smectite	
GROUNDMASS	74								
plagioclase	40	0		0.3	0.1	microlite[330]		aligned	
olivine	10	100		0.1	0.05	anhedral			
glass	25	100							
opaque minerals	5			0.2	0.05	subhedral		needle	
augite	4	0		0.07	0.03	anhedral			

SECONDARY MINERALOGY	SIZE(mm)			REPLACING/FILLING vesicle	COMMENTS
clay	min.	max.	mode.		
clay					also filled with smectite and carbonate

STRUCTURE weak, sub-vertical trachytic texture; branched vein (0.4 m wide).  
 COMMENTS

#### SUMMARY DESCRIPTION

