

Depth	Visual %	Lith	Drilling Time Scale: min	Sample Type and Interval	Lithologic Description
50			47	Cuttings (cont'd)	
55			31		
60			21		
65			49		65'-80' Clay-rich interval, clay content 60% to 80%.
70			13		70'-600' Change from mud rotary to air-foam rotary drilling.
75			(drillograph) 3		70'-90' Cuttings samples contain 10% to 40% grout. Decrease in cutting times.
80			4		
85			5		
90			6		90'-140' Clay-rich interval, clay content 30% to 70%. Cuttings range in size from less than 0.1 inches to 0.7 inches and average 0.3 inches in size. Cuttings are rounded to angular. The smaller cuttings are predominately rounded to subrounded and the larger cuttings are angular to subrounded.
95			5		
100			3		
105			4		
110			4		
115			5		

Depth	Visual %	Lith	Drilling Time Scale: min	Sample Type and Interval	Lithologic Description
115			5	Cuttings (cont'd)	
120			4		
125			5		
130			5		
135			5		
140			3		
145			4		
150			5		
155			5		
160			6		
165			4		
170			3		
175			5		
180			4		

170'-180' Clay-rich interval, clay content 20%.
 Cuttings range in size from less than 0.1
 inches to 0.5 inches and average 0.2
 inches in size.

Depth	Visual %	Lith	Drilling Time Scale: min	Sample Type and Interval	Lithologic Description
180			4	Cuttings (cont'd)	<p>190'-280' Cuttings rounded to angular. Cuttings range in size from less than 0.1 inches to 0.8 inches. Average cutting size 0.2 inches. Andesite first occurs in cuttings at 215'. Clay-rich intervals are thinner and less frequent below 190'.</p>
185			5		
190			4		
195			3		
200			4		
205			4		
210			4		
215			4		
220			5		
225			4		
230			5		
235			5		
240			5		
245			6		

Depth	Visual %	Lith	Drilling Time Scale: min	Sample Type and Interval	Lithologic Description
				Cuttings (cont'd)	
245	VVV /0		6		
250	VVV /0		8		
255	VVVVV + +00		8		255'-270' Caliche content 20%.
260	VVVVVV + +00		11		
265	VVVVV + +00		4		
270	VVVVV + +00		4		
275	VVVV + + /0		6		
280	VVVV /0		8		280'-390' Cuttings range in size from much less than 0.1 inches to 0.4 inches. Average cutting size is 0.1 inches. Cuttings are rounded to angular with rounded to subrounded cuttings ranging from 40% to 70%.
285	VVVV /0		7		
290	VVVV /0		6		
295	VVVV /0		4		
300	VVVVV + +00		7		
305	VVVVV + +00		8		
310	VVVVV + +00		7		

Depth	Visual %	Lith	Drilling Time Scale: min	Sample Type and Interval	Lithologic Description
				Cuttings (cont'd)	
310	VVVVHHHO		7		
315	VVVVHHHO		7		
320	VVVVHHHO		6		
325	HHHHVVVO		10		
330	HHHHVVVO		6		
335	HHHHVVVO		7		
340	V		6		
345	HHHHVVVO		5		
350	VVVVHHHO		8		
355	VVVVHHHO		6		
360	VVVVHHHO		10		
365	VVVVHHHO		10		
370	VVVVHHHO		8		
375	VVVVHHHO		5		

Depth	Visual %	Lith	Drilling Time Scale: min	Sample Type and Interval	Lithologic Description
				Cuttings (cont'd)	
375	VVVVVV+++/		5		
380	VVVVV+++/		5		
385	VVVVV+++/		6		
390	VVVVV+++/		6		390'-570' Cuttings range in size from less than 0.1 inches to 0.3 inches. Average cuttings size is 0.1 inches. Cuttings are rounded to angular. Rounded to subrounded cuttings comprise 50-60% of samples.
395	VVVVV+++/		8		
400	VVVVV+++/		5		400'-450' Rhyolite and andesite in equal amounts form the bulk of the volcanic fraction.
405	VVVVV+++/		6		
410	VVVVV+++/		6		
415	VVVVV+++/		8		
420	VVVVV+++/		9		
425	VVVVV+++/		15		425'-440' Increase in drilling times.
430	VVVVV+++/		16		
435	VVVVV+++/		16		
440	VVVVV+++/		12		

Depth	Visual %	Lith	Drilling Time Scale: min	Sample Type and Interval	Lithologic Description
				Cuttings (cont'd)	
440	VVVVVVVVFF//		12		
445	VVVVVVVVFF//		8		
450	VVVVVVVVFF//		6		
455	VVVVVVVVFF//		8		
460	VVVVVVVVFF//		8		460'-465' Increase in caliche to 30%.
465	VVVVVVVVFF//		6		
470	VVVVVVVVFF//		6		⁵ 470'-585' <u>Andesite-rich Alluvium (Santa Fe Group)</u> : Significant color change in samples and drilling foam are initial indications of alluvium becoming andesite-rich. Blackish gray (N5) to grayish red (10 R 4/2) aphanitic to porphyritic andesite containing 10 to 20% plagioclase and pyroxene phenocrysts forms the major fraction (60 to 95%) of the cuttings. Average cuttings size is 0.2 inches and cuttings range from less than 0.1 inches to 0.4 inches. Cuttings are rounded to angular. Limestone and siltstone form the minor fraction (5 to 40%) of the cuttings with lessor amounts of rhyolite, calcite and sandstone.
475	VVVVVVVVFF//		5		
480	VVVVVVVVFF//		6		
485	VVVVVVVVFF//		9		480'-485' Foam and cuttings distinctly purple. Andesite forms 80% of volcanic fraction.
490	VVVVVVVVFF//		5		485'-490' Possible water being produced by formation noticed while joint added.
495	VVVVVVVVFF//		5		
500	VVVVVVVVFF//		5		
505	VVVVVVVVFF//		5		

Depth	Visual %	Lith	Drilling Time Scale: min	Sample Type and Interval	Lithologic Description
				Cuttings (cont'd)	
505	VVVVVVVVVVVH		5		
510	VVVVVVVVVVVH		6		
515	VVVVVVVVVVVH		4		
520	VVVVVVVVVVVH		4		520'-585' Reddish tuff present in cuttings. Cuttings rounded to angular but predominately rounded to subrounded.
525	VVVVVVVVVVVH		3		
530	VVVVVVVVVVVH		4		
535	VVVVVVVVVVVH		5		
540	VVVVVVVVVVVH		5		540'-565' Observed possible formation water at joint add on. Drilling times fast, no indication of bedrock.
545	VVVVVVVVVVVH		5		
550	VVVVVVVVVVVH		4		
555	VVVVVVVVVVVH		3		
560	VVVVVVVVVVVH		5		
565	VVVVVVVVVVVH		6		
570	VVVVVVVVVVVH		9		

