

# LITHOLOGIC LOG

LOCATION MAP:



**NORTH**

• ST-1-473

WELL ROAD

PL-2-504 • BLM-17-493

SW 1/4 SW 1/4 NW 1/4 SE 1/4 S 32 T 20S R 3E

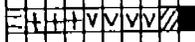
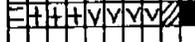
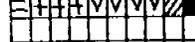
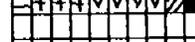
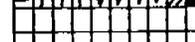
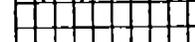
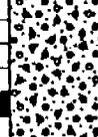
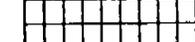
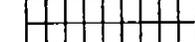
SITE ID: NASA-WSTF LOCATION ID: ST-1-473  
 SITE COORDINATES (ft.):  
 N 229161.29 E 401136.07  
 GROUND ELEVATION (ft. MSL): 4503.64 (BRASS CAP)  
 STATE: NEW MEXICO COUNTY: DOÑA ANA  
 DRILLING METHOD: Mud/Air-Foam Rotary  
 DRILLING CONTR.: Larjon  
 DATE STARTED: 15 May 1989 DATE COMPLETED: 30 May 1989  
 FIELD REP.: G. Contaldo/B. Cooper  
 COMMENTS: Mud Rotary 0-85' (9 7/8" pilot reamed to 16"); Air-Foam Rotary 82'-515' (9 7/8"); air-foam rotary core 515'-522';  
Total depth = 522'; bedrock not reached.

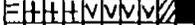
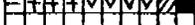
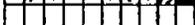
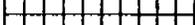
LOCATION DESCRIPTION:

Depth	Visual %	Lith	Drilling Time Scale: min	Sample Type and Interval	Lithologic Description
			(0-80' not available)	0'-515' cuttings	0-522' Alluvium (Santa Fe Group): Very light grey (N8) and grayish orange pink (10 R 8/2) to grayish black (N2); cuttings range in size from less than 1/32" (0.5 mm) to 0.6" (1.5 cm); angular to subrounded; poorly to moderately sorted. Unconsolidated to moderately consolidated, polygenetic, silty clay to cobble conglomerate including clay, silt, and sand. Lithologies include micritic limestone medium light grey (N6) to grayish black (N2), rhyolite, siltstone, andesite, quartzite, granite, tuff, sandstone, caliche (primarily as grain coating). Percentage of volcanic cuttings generally increases with depth.
5	=====++++//VO				0-50' High (10-30%) clay content, relatively large average cutting size 0.25-0.3" (6-7 mm).
10	=====++++//VO				
15	=====++++//VO				
20	=====++++//VO				
25	=====++++//V				
30	=====++++//V				
35	=====++++//VO				
40	=====++++//VO				
45	=====++++//VO				
50	=====++++//3VO				

Depth	Visual %	Lith	Drilling Time Scale: min	Sample Type and Interval	Lithologic Description
				Drill time not available 0'-80'	
50				Cuttings (cont'd)	50'-85' Decrease in clay content (< 10%) and also slight increase in average cutting size 0.3"-0.4" (8-10 mm).
55					
60					
65					
70					
75					
80					
85			10		85'-160' Slight increase in clay content (approx. 10%) and also increase in percentage of volcanic in cuttings. Caliche coated grains are also less abundant.
90			4		
95			4		
100			3		
105			5		105'-115' Decrease in average cutting size to 0.15-0.2" (4-5 mm).
110			4		
115			3		

Depth	Visual %	Lith	Drilling Time Scale: min	Sample Type and Interval	Lithologic Description
				Cuttings (cont'd)	
115			3		115'-160' Increase in average cutting size to 0.2-0.25" (5-6 mm).
120			4		
125			4		
130			4		130'-160' Slight increase in percentage of sandstone cuttings.
135			4		
140			4		
145			4		
150			4		
155			3		
160			4		160'-220' Increase in percentage of rhyolite cuttings and decrease in percentage of sandstone cuttings.
165			4		
170			5		
175			3		
180			3		

Depth	Visual %	Lith	Drilling Time Scale: min	Sample Type and Interval	Lithologic Description
180			3	Cuttings (cont'd)	
185			4		
190			3		195'-215' Slight increase in silt and clay content.
195			3		
200			3		
205			3		
210			4		
215			3		215'-240' Slight decrease in silt and clay content.
220			3		
225			5		
230			4		
235			4		
240			3		240'-260' Slight increase in silt and clay content.
245			3		

Depth	Visual %	Lith	Drilling Time Scale: min	Sample Type and Interval	Lithologic Description	
245			3	Cuttings (cont'd)	270'-515' Increase in percentage of igneous (primarily rhyolite and andesite) cuttings and slight decrease in per- centage of limestone cuttings.	
250			3			
255			2			
260			3			
265			5			
270			3			
275			3			
280			3			
285			6			
290			3			
295			7			295'-325' Drilling rates begin to increase slightly indicating moderately indurated alluvium and/or possibly increase in clay content.
300			5			
305			8			
310			8			

Depth	Visual %	Lith	Drilling Time Scale: min	Sample Type and Interval	Lithologic Description
310			8	Cuttings (cont'd)	
315			7		
320			6		
325			5		
330			6		
335			6		
340			4		
345			7		
350			6		
355			4		
360			6		
365			9		325'-360' Decrease in clay content and slight increase in percentage of sandstone cuttings. Sandstone cuttings may be moderately indurated sands.
370			5		
375			6		365'-370' Slight increase in clay content.

Depth	Visual %	Lith	Drilling Time Scale: min	Sample Type and Interval	Lithologic Description
375	E+VVVVVVV		6	Cuttings (cont'd)	
380	E+VVVVVVV		7		
385	E+VVVVVVV		5		
390	E+VVVVVVV		7		
395	E+VVVVVVV		5		
400	E+VVVVVVV		5		
405	E+VVVVVVV		5		
410	E+VVVVVVV		7		
415	E+VVVVVVV		7		
420	E+VVVVVVV		5		
425	E+VVVVVVV		6		
430	E+VVVVVVV		7		
435	E+VVVVVVV		5		
440	E+VVVVVVV		8		

Depth	Visual %	Lith	Drilling Time Scale: min	Sample Type and Interval	Lithologic Description
				Cuttings (cont'd)	
440	VVVVVVV		8		
445	VVVVVVV		4		445'-515' Drilling rates begin to decrease indicating that alluvium is becoming slightly less indurated and/or clay content decreases.
450	VVVVVVV		4		
455	VVVVVVV		4		
460	VVVVVVV		4		
465	VVVVVVV		3		
470	VVVVVVV		4		
475	VVVVVVV		3		
480	VVVVVVV		6		
485	VVVVVVV		4		
490	VVVVVVV		3		
495	VVVVVVV		3		
500	VVVVVVV		5		
505	VVVVVVV	4			

Depth	Visual %	Lith	Drilling Time Scale: min	Sample Type and Interval	Lithologic Description
505			4	Cuttings (cont'd)	**CORE INTERVAL** (See Attached Core Description)
510			3	515'-522' Core	
515			3	515'-522' Core	
520			85 (cored 7')	515'-522' Core	
525			85 (cored 7')		
530			85 (cored 7')		
535			85 (cored 7')		
540			85 (cored 7')		
545			85 (cored 7')		
550			85 (cored 7')		
555			85 (cored 7')		
560			85 (cored 7')		
565			85 (cored 7')		
570			85 (cored 7')		