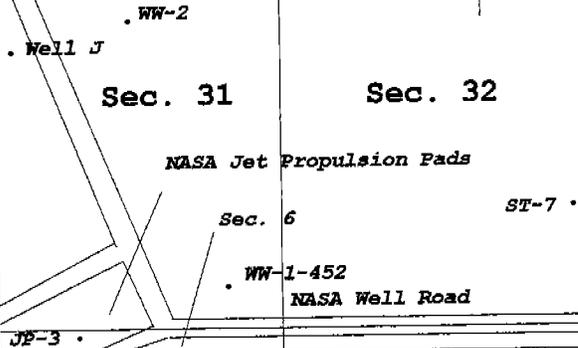


# WSTF Well Borehole Lithologic/Geophysical log

## Location Map (not to scale)



**Site I.D:** NASA-WSTF **Location I.D:** ST-7  
**County and State:** Dona Ana County, New Mexico  
**Site Coordinates:** N-228434.04 E-399760.52  
**Ground Elevation:** 4482.78'  
**Total Depth of Borehole:** 1,020'  
**Depth to Bedrock and Type:** Not intercepted.  
**Depth to Groundwater from Geophysics:** 365'  
**Drilling Method(s):** Mud Rotary, reamed 17.5" to 105'; set 14" OD surface casing to 103'. Drilled 12.25" to 1,020'.  
**Drilling Contractor:** Stewart Brothers Drilling Co.  
**Geophysical Survey Contractor:** Southwest Geophysical, Inc.  
**ATSC Field Representative(s):** L. Hunnicutt, M. McClure, and J. Pearson.

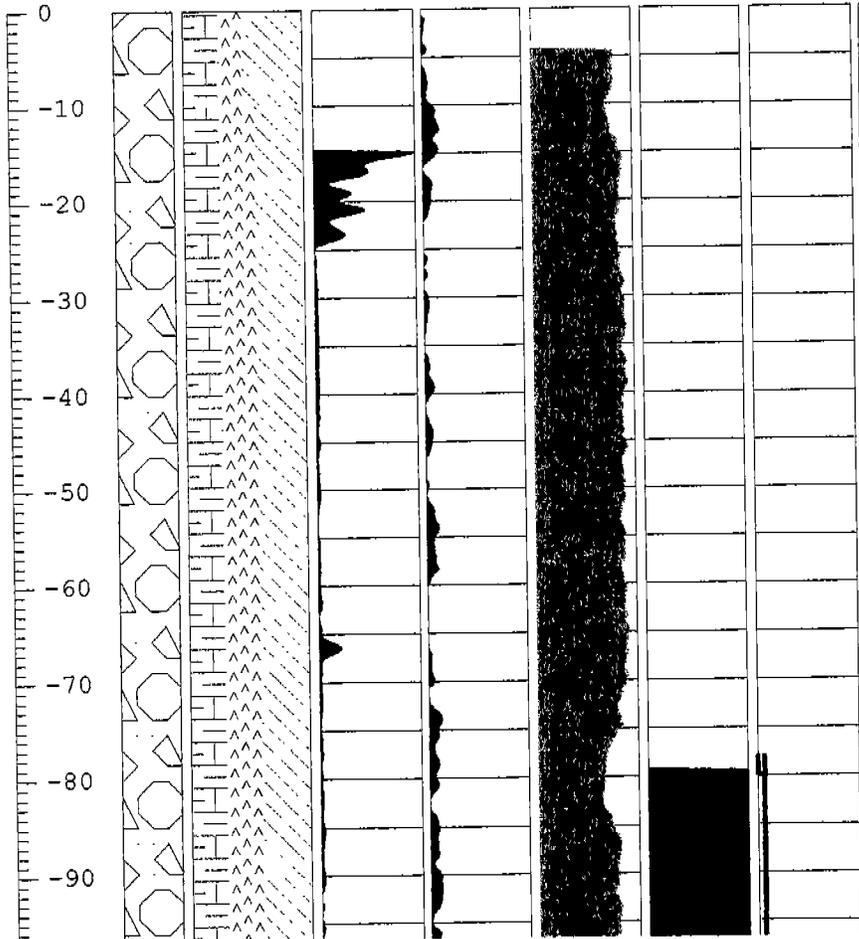
## Location Description

**Quarter 1:** W 1/2 **Section:** 32  
**Quarter 2:** SE 1/4 **Township:** 20 S  
**Quarter 3:** SW 1/4 **Range:** 3 E

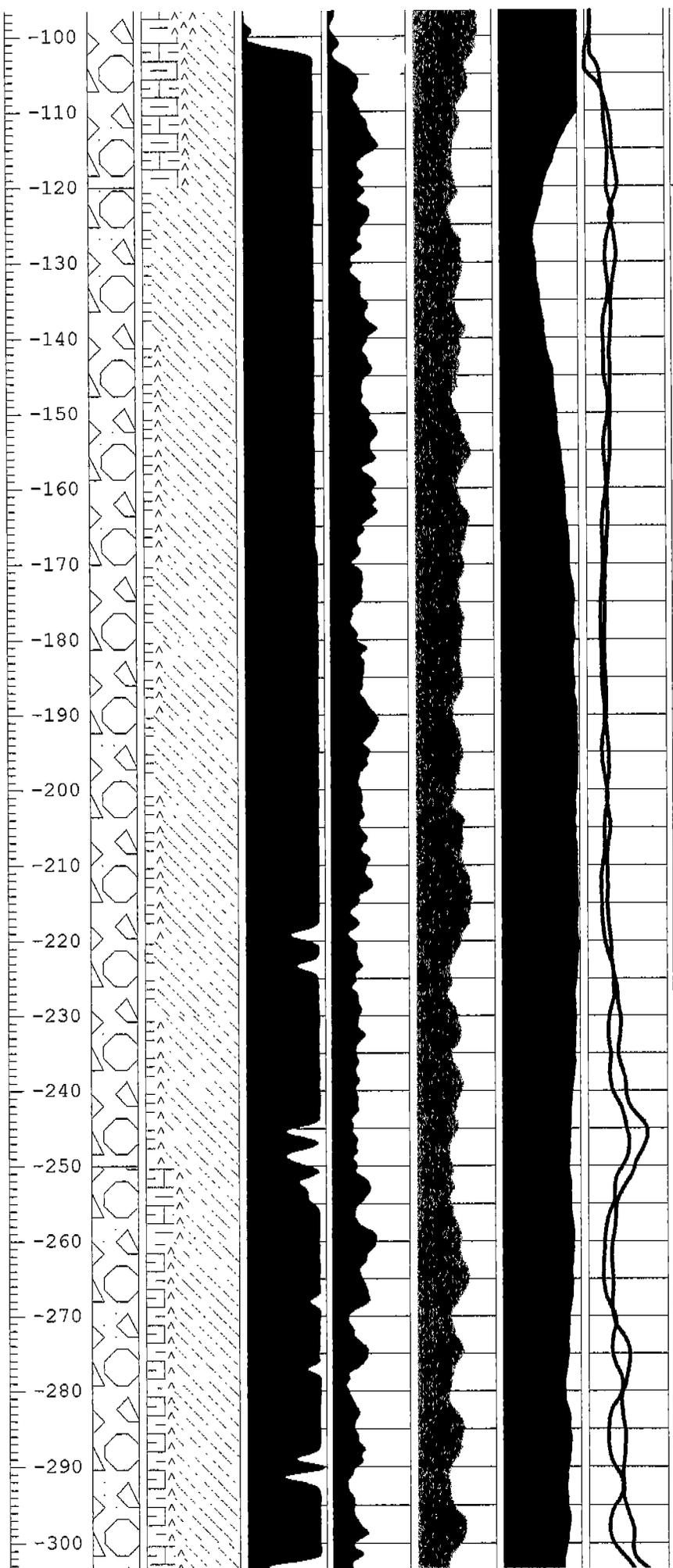
**Dates Drilling Started and Completed:** 1/26/99 to 3/16/99.  
**Comments:** Retrofit Westbay well inside 4.5" OD stainless steel casing with four sampling zones. Lithologic samples collected every 10'.

**Location Description:** ST-7 is located approximately 4 miles west of the WSTF 100 Area.

Depth (Feet)	Lithology	Visual Percent		Sonic Porosity (Msec./ft.)		Gamma API		Neutron API		SP (Millivolts)		Resistivity (OHM-M) 64"-green 16"-red	Lithologic Description	
		0	100	0	120	50	200	0	75	-15	30			
		0	100	0	120	50	200	0	75	-15	30	0	100	

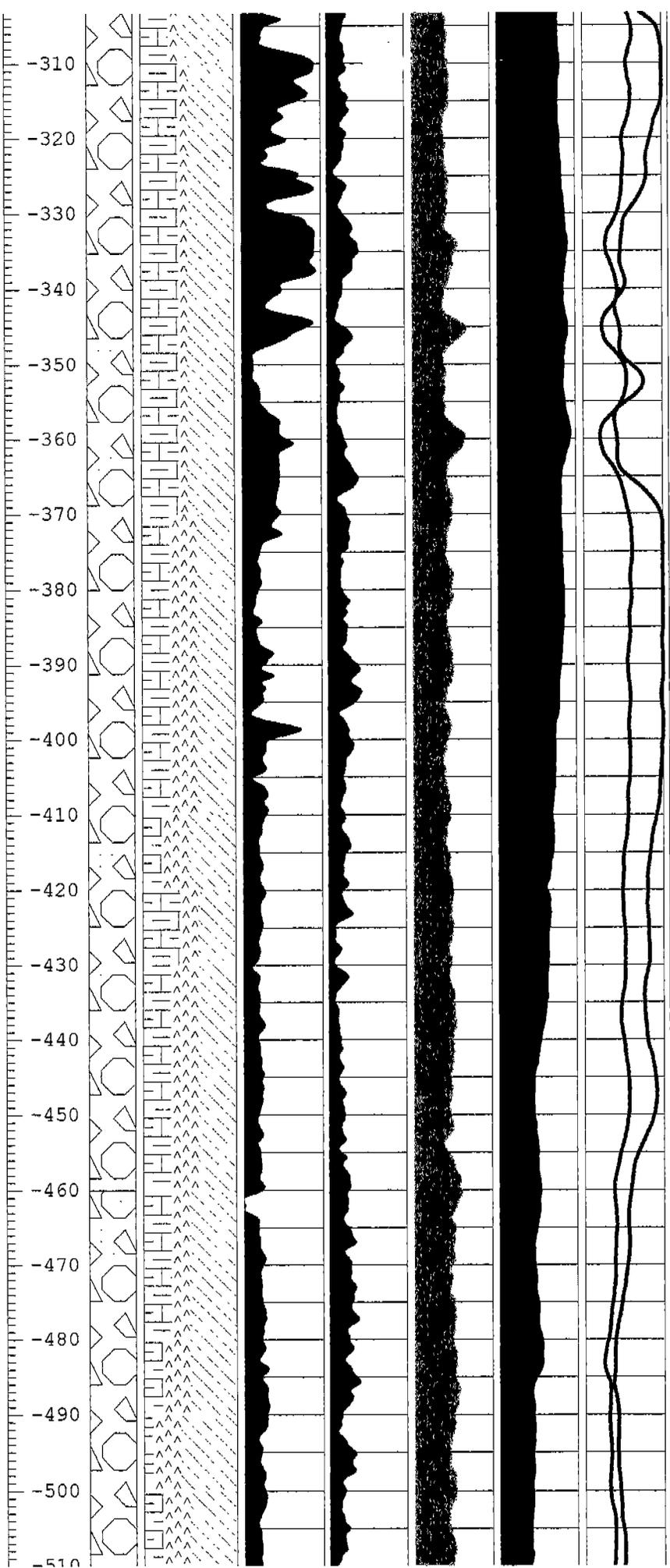


**ALLUVIUM: Santa Fe Group (0-1,020 feet):** The Santa Fe Group Alluvium is a poorly to moderately sorted polygenetic pebble conglomerate that consists predominantly of limestone and igneous clasts eroded from the nearby San Andres Mountains. Clasts generally comprise 30-60% of the lithologic samples. The following clast types were observed within the Santa Fe Alluvium: 1) 10-40% limestone clasts that are light gray (N6) to dark gray (N3), micritic, rounded to subangular, and display abundant hairline calcite-filled fractures, 2) 0-50% igneous clasts (both intrusive and extrusive) including moderate reddish brown (10R 4/6) to grayish red (5R 4/2) rhyolite, very light gray (N8) andesite to andesite porphyry, grayish orange (10YR 7/4) to very pale orange (10YR 8/2) rhyolite porphyry, moderate pink (5R 7/4) to grayish orange pink (10R 8/2) granite, grayish red (10R 4/2) to dark reddish brown (10R 3/4) quartzite and very light gray (N8) to medium light gray (N6) vitric lithic tuff, and 3) 20-90% dark reddish brown siltstone and clay. Siltstone and clay layers may be the result of in situ breakdown of volcanic clasts or may represent the muddy distal fan portion of alluvial fans. Note: the percent of volcanic clasts increases with depth.



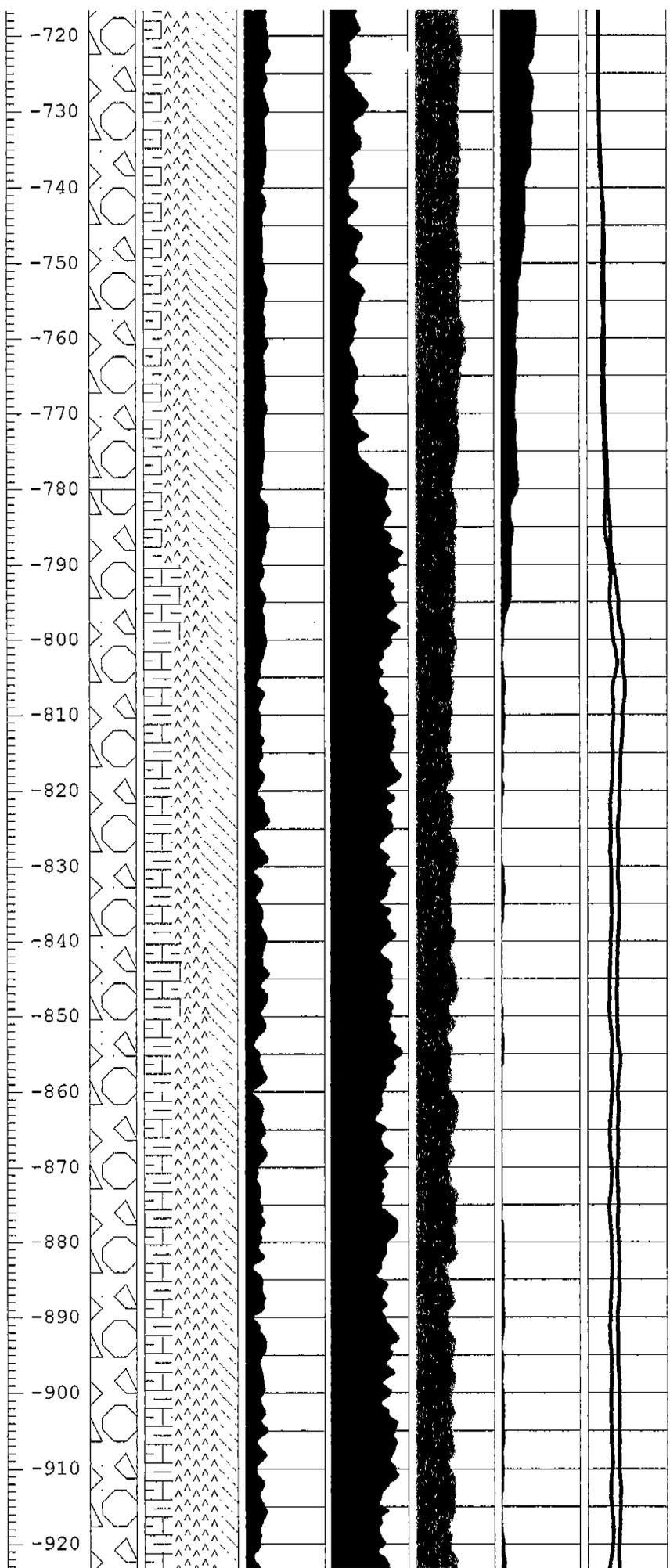
ALLUVIUM: (120-250 feet): Significant increase in clay content to 80-90%. (170-250 feet): Color of clay changes to grayish orange (10YR 7/4).

ALLUVIUM: (250-460 feet): Percentage of volcanic clasts increases from 10-30%.



ALLUVIUM: (460-510 feet): Volcanic clasts 20-30%.  
Interval contains nodular clay.





**ALLUVIUM: (780-1,020 feet):** Volcanic-Rich Alluvium.  
Contact based on information from the gamma log. Clasts generally comprise 60-80% of the lithologic sample.  
Volcanic clasts comprise 40-50% of the lithologic sample.

