

**Table XX.** Lithologic Shaker Log for multiple-well monitoring site Santa Ysabel (SDSY) (12S/1W-34L2-4)

[Altitude of land surface, approximately 400 feet. Depth is in feet below land surface. Soil and rock color notation from Munsell Color (2000). Drilled by U.S. Geological Survey using hydraulic rotary, October 2010. Total depth drilled 355 feet. Screened intervals: 70-90, 190-210, and 280-340 feet]

Depth (ft)	Description
10	Sandy gravel (G); granules to very large pebbles and medium to very coarse sand; very poorly sorted; angular to subangular ; grayish brown (2.5Y 5/2); <i>feldspathic</i> ; <i>mafics (hornblende &amp; biotite)</i> ; <i>minor rounded diorite clasts(10 – 12mm) and trace low-grade gneiss clasts (&lt;33mm)</i>
20	Sandy silty clay (sM); clay with silt and medium to very coarse sand; very poorly sorted; black (2.5Y 2.5/1); <i>micaceous (biotite)</i>
30	Gravelly sand (gS); coarse to very coarse sand with granules to small pebbles and trace silt; very poorly sorted; angular to subangular; dark grayish brown (2.5Y 4/2); <i>feldspathic</i> ; <i>mafics (hornblende &amp; biotite)</i>
40	Gravelly sand (gS); coarse to very coarse sand with granules to small pebbles; very poorly sorted; angular to subangular; dark grayish brown (2.5Y 4/2); <i>feldspathic</i> ; <i>mafics (hornblende &amp; biotite)</i>
50	Gravelly sand (gS); fine to very coarse sand with granules to small pebbles; very poorly sorted; angular to subangular; dark grayish brown (2.5Y 4/2); <i>feldspathic</i> ; <i>feldspathic</i> ; <i>mafics (hornblende &amp; biotite)</i> ; <i>trace olivine</i>
60	Gravelly sand (gS); medium to very coarse sand with granules to small pebbles; very poorly sorted; very angular to angular; dark grayish brown (2.5Y 4/2); <i>feldspathic</i> ; <i>mafics (hornblende &amp; biotite)</i> ;
70	Gravelly clayey sand (gmS); medium to very coarse sand with clay and granules to medium pebbles; very poorly sorted; angular to subangular; very dark grayish brown (2.5Y 3/2); <i>minor mafics (hornblende &amp; biotite)</i> ; <i>trace granitic clasts (8 – 16mm)</i>
80	Gravelly clayey sand (gmS); very fine to very coarse sand with clay and granules to medium pebbles; very poorly sorted; angular to subangular; dark olive brown (2.5Y 3/3); <i>minor mafics (hornblende &amp; biotite)</i> ; <i>oxidized</i>
90	Silty clay (M); clay and silt with minor fine to coarse sand and trace granules to medium pebbles; very poorly sorted; olive brown (2.5Y 4/3); <i>minor mafics (hornblende &amp; biotite)</i> ; <i>oxidized</i>
100	Silty clay (M); clay with silt, minor fine to coarse sand, and trace granules to small pebbles; very poorly sorted; olive brown (2.5Y 4/3); <i>minor mafics (hornblende &amp; biotite)</i> ; <i>trace rounded gneiss (10mm) clasts</i> ; <i>oxidized</i>
110	Slightly gravelly sandy silty clay ((g)sM); clay with silt, very fine to very coarse sand, and trace granules to medium pebbles; very poorly sorted; olive brown (2.5Y 4/3); <i>trace mafics (hornblende &amp; biotite)</i> ; <i>oxidized</i>
120	Sandy silty clay (sM); clay with silt, very fine to very coarse sand, and trace granules to medium pebbles; very poorly sorted; olive brown (2.5Y 4/3); <i>trace mafics (hornblende &amp; biotite)</i> ; <i>oxidized</i>

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Depth (ft)	Description
130	Gravelly silty sand (gmS); medium to very coarse sand with silt and granules to large pebbles; very poorly sorted; angular to subangular; dark grayish brown (2.5Y 4/2); <i>feldspathic; mafics (hornblende &amp; biotite); heavily weathered granodiorite</i>
140	Gravelly sand (gS); medium to very coarse sand with granules to small pebbles and trace silt; very poorly sorted; angular to subangular; olive brown (2.5Y 4/3); <i>feldspathic; mafics (hornblende &amp; biotite); oxidized; heavily weathered granodiorite</i>
150	Gravelly silty sand (gmS); medium to very coarse sand with silt and granules to small pebbles; very poorly sorted; angular to subangular; olive gray (5Y 4/2); <i>feldspathic; mafics (hornblende &amp; biotite); minor oxidation; heavily weathered granodiorite</i>
160	Gravelly silty sand (gmS); coarse to very coarse sand with silt and granules to medium pebbles; very poorly sorted; angular to subangular; olive gray (5Y 4/2); <i>feldspathic; mafics (hornblende &amp; biotite); weakly oxidized; heavily weathered granodiorite</i>
170	Slightly gravelly silty sand ((g)mS); medium to very coarse sand with silt and granules to large pebbles; very poorly sorted; angular to subangular; olive gray (5Y 4/2); <i>feldspathic; mafics (hornblende &amp; biotite); heavily weathered granodiorite</i>
180	Gravelly sand (gS); medium to very coarse sand with granules to small pebbles; very poorly sorted; angular to subangular; olive gray (5Y 4/2); <i>feldspathic; mafics (hornblende &amp; biotite); heavily weathered granodiorite</i>
190	Sand (S); medium to very coarse sand with trace granules to small pebbles; well to moderately sorted; angular to subangular; olive gray (5Y 4/2); <i>feldspathic; mafics (hornblende &amp; biotite); weathered granodiorite</i>
200	Slightly gravelly sand ((g)S); medium to very coarse sand with granules to small pebbles; poorly sorted; angular to subangular; olive gray (5Y 4/2); <i>feldspathic; mafics (hornblende &amp; biotite); weathered granodiorite</i>
200 1C top	Medium to coarse-crystalline hypidiomorphic biotite hornblende granodiorite; salt and pepper; <i>oxidized; friable; weathered</i>
210	Slightly gravelly sand ((g)S); medium to very coarse sand with granules and minor clay; poorly sorted; angular to subangular; dark gray (5Y 4/1); <i>feldspathic; mafics (hornblende &amp; biotite); weathered granodiorite</i>
220	Slightly gravelly sand ((g)S); medium to very coarse sand with granules and trace clay; poorly sorted; very angular to angular; dark gray (5Y 4/1); <i>feldspathic; mafics (hornblende &amp; biotite); weathered granodiorite</i>
230	Gravelly sand (gS); medium to very coarse sand with granules to medium pebbles; very poorly sorted; angular to subangular; grayish brown (2.5Y 5/2); <i>feldspathic; minor mafics (hornblende &amp; biotite); weathered granite; dike</i>

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Depth (ft)	Description
240	Slightly gravelly sand ((g)S); medium to very coarse sand with granules to small pebbles; poorly sorted; very angular to angular; very dark gray (5Y 3/1); <i>feldspathic</i> ; <i>mafics (hornblende &amp; biotite)</i> ; <i>granodiorite</i>
250	Slightly gravelly sand ((g)S); medium to very coarse sand with granules; poorly sorted; very angular to angular; very dark gray (5Y 3/1); <i>feldspathic</i> ; <i>mafics (hornblende &amp; biotite)</i> ; <i>granodiorite</i>
260	Slightly gravelly sand ((g)S); medium to very coarse sand with granules to small pebbles; poorly sorted; very angular to angular; very dark gray (5Y 3/1); <i>feldspathic</i> ; <i>mafics (hornblende &amp; biotite)</i> ; <i>granodiorite</i>
270	Slightly gravelly sand ((g)S); medium to very coarse sand with granules to small pebbles; poorly sorted; very angular to angular; very dark gray (5Y 3/1); <i>feldspathic</i> ; <i>mafics (hornblende &amp; biotite)</i> ; <i>granodiorite</i>
280	Slightly gravelly sand ((g)S); medium to very coarse sand with granules to small pebbles; poorly sorted; very angular to angular; salt and pepper; <i>feldspathic</i> ; <i>mafics (hornblende &amp; biotite)</i> ; <i>granodiorite</i>
290	Slightly gravelly sand ((g)S); medium to very coarse sand with granules; poorly sorted; very angular to angular; salt and pepper; <i>feldspathic</i> ; <i>mafics (hornblende &amp; biotite)</i> ; <i>granodiorite</i>
300	Slightly gravelly sand ((g)S); medium to very coarse sand with granules; poorly sorted; very andgular to angular; salt and pepper; <i>feldspathic</i> ; <i>mafics (hornblende &amp; biotite)</i> ; <i>granodiorite</i>
310	Slightly gravelly sand ((g)S); medium to very coarse sand with granules to small pebbles; poorly sorted; very angular to angular; salt and pepper; <i>feldspathic</i> ; <i>mafics (hornblende &amp; biotite)</i> ; <i>granodiorite</i>
320	Slightly gravelly sand ((g)S); medium to very coarse sand with granules to small pebbles; poorly sorted; very angular to angular; salt and pepper; <i>feldspathic</i> ; <i>mafics (hornblende &amp; biotite)</i> ; <i>granodiorite</i>
330	Slightly gravelly sand ((g)S); medium to very coarse sand with granules; poorly sorted; very angular to angular; salt and pepper; <i>feldspathic</i> ; <i>mafics (hornblende &amp; biotite)</i> ; <i>granodiorite</i>
340	Slightly gravelly sand ((g)S); fine to very coarse sand with granules; poorly sorted; angular to subangular; olive gray (5Y 5/2); <i>feldspathic</i> ; <i>minor mafics (hornblende &amp; biotite)</i> ; <i>granite</i> ; <i>dike</i>
350	Sandy gravel (sG); granules to small pebbles with medium to very coarse sand; very poorly sorted; angular to subangular; olive gray (5Y 5/2); <i>feldspathic</i> ; <i>minor mafics (hornblende &amp; biotite)</i> ; <i>granite</i> ; <i>dike</i>
355 2C shoe	Weakly foliated fine-crystalline xenomorphic-hypidiomorphic leucocratic biotite hornblende granite intruding a coarse-crystalline hypidiomorphic biotite hornblende granodiorite; salt and pepper; <i>trace limonite</i> ; <i>fractured</i>