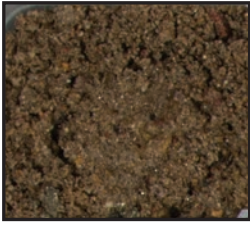
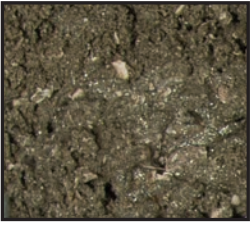
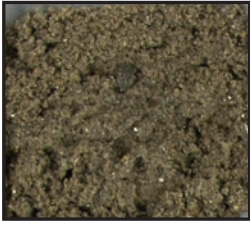
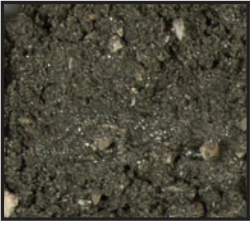
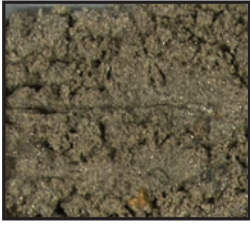
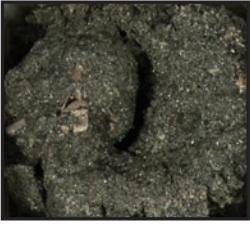
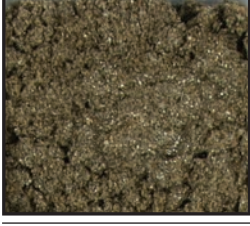
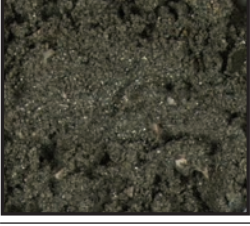

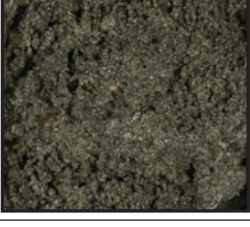


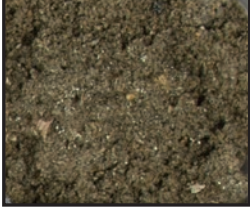
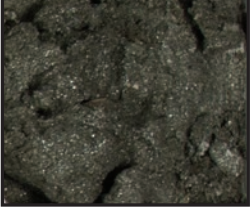
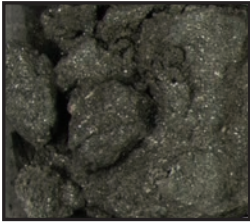
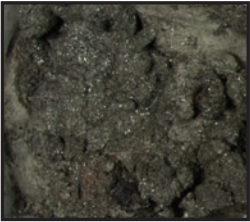

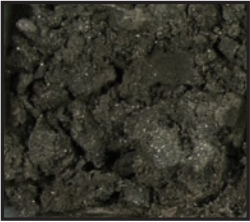
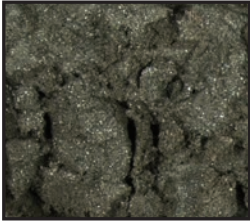
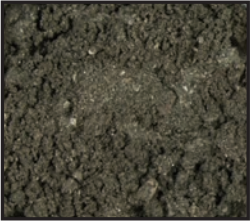


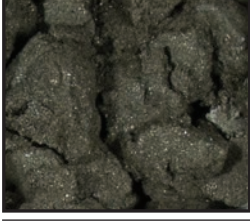

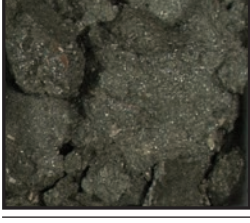


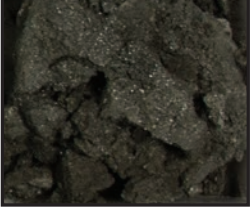
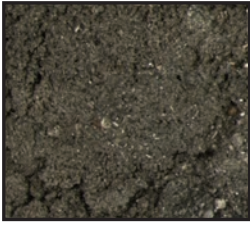
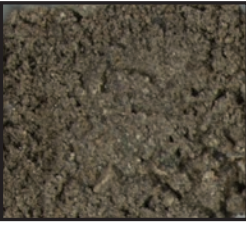
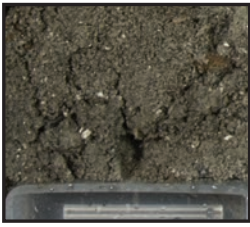



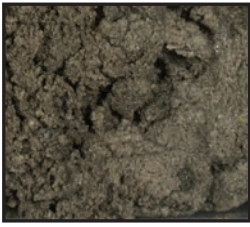
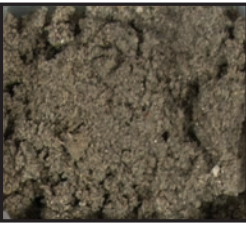
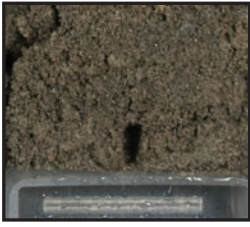
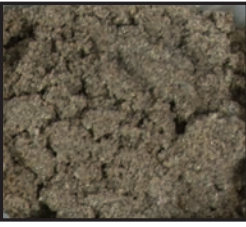



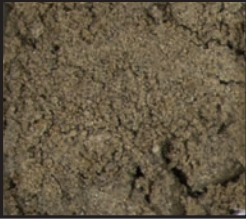


Depth interval (feet) and description	Depth interval (feet) and description		
	<p>0–20: Slightly gravelly sand ((g)S); fine to coarse sand and gravel &lt;20 mm; poorly sorted; subangular to subrounded; reddish brown (5YR 5/4).</p>		<p>140–160: Slightly gravelly sand ((g)S); very fine sand with minor fine to coarse sand, silt and granules &lt;8mm; poorly sorted; subangular rounded; olive brown (2.5Y 4/3); <i>fragments of bivalve shells</i>.</p>
	<p>20–40: Sand (S); fine to medium sand with minor very fine sand; moderately sorted; subangular to subrounded; light yellowish brown (2.5Y 6/4).</p>		<p>160–180: Silty sand (zS); very fine to fine sand with silt; well sorted; subangular to subrounded (2.5Y 4/1); <i>fragments of bivalve shells</i>.</p>
	<p>40–60: Sand (S); very fine to fine sand with minor medium to coarse sand and trace gravel; moderately sorted; subangular rounded; light yellowish brown (2.5Y 6/4).</p>		<p>180–200: Sand (S); very fine to fine sand; well sorted; subangular to subrounded; dark gray (2.5Y 4/1); <i>fragments of bivalve shells</i>.</p>
	<p>60–80: Sand (S); very fine to fine sand with minor medium to coarse sand and trace gravel; poorly sorted; subangular to rounded; light olive brown (2.5Y 5/4); <i>minor shell fragments</i>.</p>		<p>200–220: Sand (S); very fine to coarse sand; moderately sorted; subangular to subrounded; dark gray (2.5Y 4/1); <i>fragments of bivalve shells</i>.</p>
	<p>80–100: Sand (S); very fine to very coarse sand; poorly sorted; subangular to subrounded; light yellowish brown (2.5Y 6/4).</p>		<p>220–240: Sand (S); very fine to fine sand with minor medium to coarse sand; moderately sorted; subangular to subrounded; dark gray (2.5Y 4/1); <i>minor shell fragments</i>.</p>
	<p>100–120: Sand (S); very fine to fine sand with minor medium sand; well to moderately sorted; subangular to subrounded; light yellowish brown (2.5Y 6/4).</p>		<p>240–260: Sand (S); very fine to fine sand; well sorted; subangular to subrounded; dark gray (2.5Y 4/1); <i>fragments of bivalve shells</i>.</p>
	<p>120–140: Sand (S); fine to medium with minor very fine to coarse sand; moderately sorted; subangular to subrounded; light yellowish brown (2.5Y 6/4); <i>fragments of bivalves and gastropods</i>.</p>		<p>260–280: Silty sand (zS); very fine sand with silt; well sorted; subangular to subrounded; dark gray (2.5Y 4/1); <i>fragments of bivalve shells</i>.</p>

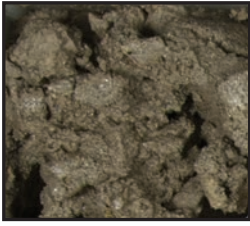


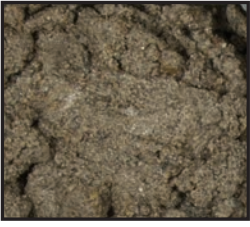

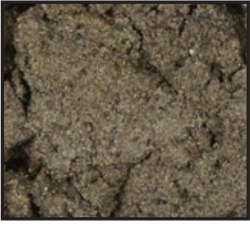

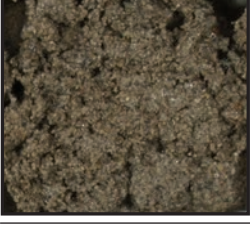




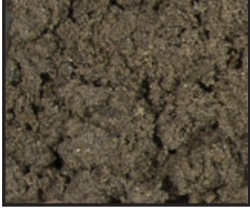

**Figure 18F.** Lithologic descriptions and photographs of **sieve** drill cuttings collected from the borehole at 16 USGS multiple-depth, monitoring-well sites in San Diego County, California, 1995, 2003–2017: (A) SDCD; (B) SDSY; (C) SDLH; (D) SDAQ; (E) SDPC; (F) **SDBP**; (G) SDHF; (H) SDEP; (I) SDNB; (J) SDSW; (K) SDMC; (L) SLDL; (M) SDCC; (N) SDOR; (O) SDOT; and (P) SDBW.

Depth interval (feet) and description	Depth interval (feet) and description		
	280–300: Silty sand (zS); very fine sand with silt; well sorted; subangular to subrounded; dark gray (2.5Y 4/1); <i>minor fragments of bivalve shells.</i>		420–440: Sandy silt (sZ); silt with very fine sand; well sorted; dark gray (2.5Y 4/1).
	300–320: Silty sand (zS); very fine sand with silt; well sorted; subangular to subrounded; dark gray (2.5Y 4/1).		440–460: Sandy silt (sZ); silt with very fine sand; well sorted; dark gray (2.5Y 4/1).
	320–340: Silty sand (zS); very fine sand with silt; well sorted; subangular to subrounded; dark gray (2.5Y 4/1).		460–480: Silty sand (zS); very fine to medium sand with silt; moderately sorted; subangular to subrounded; dark gray (2.5Y 4/1); <i>fragments of bivalve shells.</i>
	340–360: Silty sand (zS); very fine sand with silt; well sorted; subangular to subrounded; dark gray (2.5Y 4/1).		480–500: Silty sand (zS); very fine to fine sand with silt; well sorted; subangular to subrounded; very dark gray (2.5Y 3/1); <i>fragments of bivalve shells and gastropods.</i>
	360–380: Silty sand (zS); very fine sand with silt; well sorted; subangular to subrounded; dark gray (2.5Y 4/1).		500–520: Silty clay (M); clay with silt and minor sand; well sorted; very dark gray (2.5Y 3/1); <i>fragments of bivalve shells.</i>
	380–400: Sandy silt (sZ); silt with very fine sand; well sorted; dark gray (2.5Y 4/1); <i>fragments of bivalve shells.</i>		520–540: Sandy silty clay (sM); clay with silt and very fine to fine sand; moderately sorted; very dark gray (2.5Y 3/1); <i>fragments of bivalve shells.</i>
	400–420: Silty clay (M); clay with silt; well sorted; dark gray (2.5Y 4/1); <i>fragments of bivalve shells.</i>		540–560: Sandy silt (sZ); silt with very fine to fine sand; well sorted; very dark gray (2.5Y 3/1); <i>fragments of bivalve shells.</i>

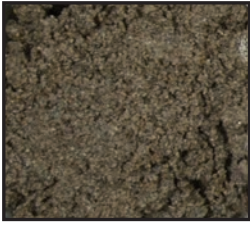
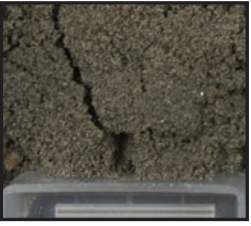
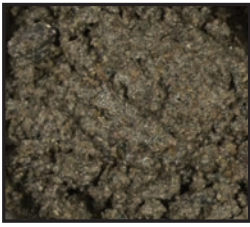
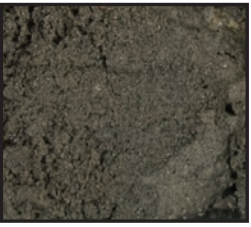
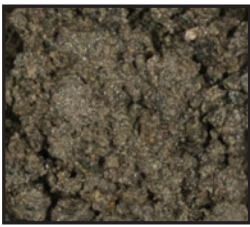

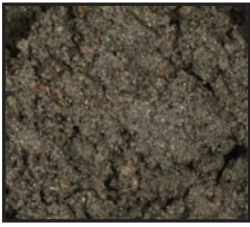
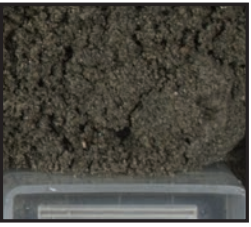
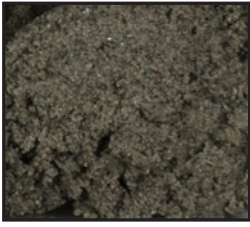



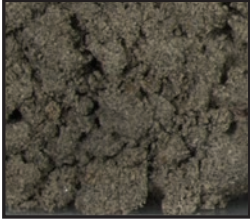
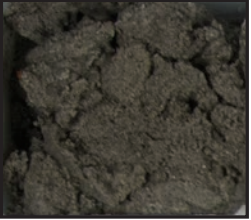
**Figure 18F.** Lithologic descriptions and photographs of **sieve** drill cuttings collected from the borehole at 16 USGS multiple-depth, monitoring-well sites in San Diego County, California, 1995, 2003–2017: (A) SDCD; (B) SDSY; (C) SDLH; (D) SDAQ; (E) SDPC; (F) **SDBP**; (G) SDHF; (H) SDEP; (I) SDNB; (J) SDSW; (K) SDMC; (L) SDLD; (M) SDCC; (N) SDOR; (O) SDOT; and (P) SDBW. —Continued.

Depth interval (feet) and description	Depth interval (feet) and description	Depth interval (feet) and description	Depth interval (feet) and description
	<p>560–580: Sand (S); fine to coarse sand; moderately sorted; subangular to subrounded; dark gray (2.5Y 4/1); <i>fragments of bivalve shells</i>.</p>		<p>700–720: Clayey sand (cS); very fine to medium sand with clay; moderately sorted; subangular to subrounded; brown (7.5YR 4/3).</p>
	<p>580–600: Sand (S); fine to medium sand with minor coarse to very coarse sand; poorly sorted; subangular to subrounded; dark gray (2.5Y 4/1); <i>fragments of bivalve shells</i>.</p>		<p>720–740: Clayey sand (cS); very fine to fine sand and clay with minor medium to coarse sand; poorly sorted; subangular to subrounded (10Y 5/3).</p>
	<p>600–620: Sand (S); fine to medium sand with minor coarse sand; moderately sorted; subangular to subrounded; grayish brown (2.5Y 5/2); <i>shell fragments</i>.</p>		<p>740–760: Clayey sand (cS); very fine to fine with minor medium to coarse sand and minor clay; poorly sorted; subangular to subrounded; brown (7.5YR 4/3).</p>
	<p>620–640: Clayey sand (cS); fine to medium sand and clay with minor coarse to very coarse sand; poorly sorted; subangular to subrounded; grayish brown (2.5Y 5/2); <i>shell fragments</i>.</p>		<p>760–780: Sand (S); fine to medium sand with minor coarse sand; well sorted; subangular to subrounded; grayish brown (2.5Y 5/2).</p>
	<p>640–660: Silty sand (zS); fine to medium sand and silt with minor coarse sand; moderately sorted; subangular to subrounded; grayish brown (2.5Y 5/2).</p>		<p>780–800: Sand (S); fine to medium sand with minor coarse sand; well sorted; subangular to subrounded; grayish brown (2.5Y 5/2).</p>
	<p>660–680: Silty sand (zS); very fine to medium sand with silt; moderately sorted; subangular to subrounded; grayish brown (2.5Y 5/2).</p>		<p>800–820: Sand (S); fine to medium sand with minor very fine sand; moderately sorted; subangular to subrounded; grayish brown (2.5Y 5/2).</p>
	<p>680–700: Clayey sand (cS); very fine to fine sand and clay with minor medium sand; poorly sorted; subangular to subrounded; brown (7.5YR 4/3).</p>		<p>820–840: Sand (S); fine to medium sand with minor very fine sand; moderately sorted; subangular to subrounded; light olive brown (2.5Y 5/3).</p>

**Figure 18F.** Lithologic descriptions and photographs of **sieve** drill cuttings collected from the borehole at 16 USGS multiple-depth, monitoring-well sites in San Diego County, California, 1995, 2003–2017: (A) SDCD; (B) SDSY; (C) SDLH; (D) SDAQ; (E) SDPC; **(F) SDBP**; (G) SDHF; (H) SDEP; (I) SDNB; (J) SDSW; (K) SDMC; (L) SDLD; (M) SDCC; (N) SDOR; (O) SDOT; and (P) SDBW. —Continued.

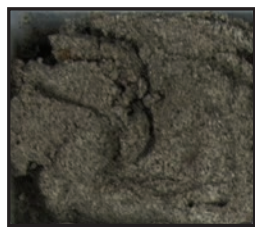
Depth interval (feet) and description	Depth interval (feet) and description		
	<p>840–860: Clayey sand (cS); very fine to fine sand with clay; well sorted; subangular to subrounded; grayish brown (2.5Y 5/2).</p>		<p>978–998: Sand (S); fine to medium sand with minor very fine to coarse sand; moderately sorted; subangular to subrounded; yellowish brown (10YR 5/4).</p>
	<p>860–880: Silty clay (M); clay with silt and minor very fine sand present; moderately sorted; dark grayish brown (2.5Y 4/2).</p>		<p>998–1,018: Sand (S); fine to medium sand with minor coarse sand; moderately sorted; subangular to subrounded; yellowish brown (10YR 5/4).</p>
	<p>880–900: Clayey sand (cS); very fine to medium sand and clay; moderately sorted; subangular to subrounded; dark grayish brown (2.5Y 4/2).</p>		<p>1,018–1,038: Sand (S); fine to coarse sand; moderately sorted; subangular to subrounded; yellowish brown (10YR 5/4).</p>
	<p>900–920: Silty clay (M); clay with silt; well sorted; dark grayish brown (2.5Y 4/2).</p>		<p>1,038–1,058: Sand (S); fine to medium sand with minor coarse sand; moderately sorted; subangular to subrounded; yellowish brown (10YR 5/4).</p>
	<p>920–940: Sandy silty clay (sM); clay with silt and very fine to fine sand; poorly sorted; dark grayish brown (2.5Y 4/2).</p>		<p>1,058–1,078: Sand (S); fine to medium sand with minor coarse to very coarse sand; moderately sorted; subangular to subrounded; yellowish brown (10YR 5/4).</p>
	<p>940–960: Sand (S); very fine to medium sand and minor coarse sand; moderately to poorly sorted; subangular to subrounded; dark yellowish brown (10YR 4/4).</p>		<p>1,078–1,098: Slightly gravelly sand ((g)S); fine to very coarse sand and gravel &lt;5mm; poorly sorted; angular to subrounded; yellowish brown (10YR 5/4).</p>
	<p>960–978: Slightly gravelly sand ((g)S); fine to coarse sand and gravel &lt;8 mm; poorly sorted; angular to subrounded; yellowish brown (10YR 5/4).</p>		<p>1,098–1,118: Slightly gravelly sand ((g)S); very fine to very coarse sand and gravel &lt;6mm; poorly sorted; angular to subrounded; yellowish brown (10YR 5/4).</p>

**Figure 18F.** Lithologic descriptions and photographs of **sieve** drill cuttings collected from the borehole at 16 USGS multiple-depth, monitoring-well sites in San Diego County, California, 1995, 2003–2017: (A) SDCD; (B) SDSY; (C) SDLH; (D) SDAQ; (E) SDCP; (F) **SDBP**; (G) SDHF; (H) SDEP; (I) SDNB; (J) SDSW; (K) SDMC; (L) SDLD; (M) SDCC; (N) SDOR; (O) SDOT; and (P) SDBW. —Continued.

Depth interval (feet) and description	Depth interval (feet) and description	Depth interval (feet) and description	Depth interval (feet) and description
	<p>1,118–1,138: Sand (S); very fine to coarse sand; moderately sorted; subangular to subrounded; yellowish brown (10YR 5/4).</p>		<p>1,258–1,278: Sand (S); fine sand with minor very fine to medium sand; well sorted; subangular to subrounded; dark gray (2.5Y 4/1).</p>
	<p>1,138–1,158: Slightly gravelly sand ((g)S); fine to coarse sand and gravel &lt;10mm; poorly sorted; subangular to subrounded; yellowish brown (10YR 5/4).</p>		<p>1,278–1,298: Silty sand (zS); very fine to fine sand with silt; moderately sorted; subangular to subrounded; dark gray (2.5Y 4/1).</p>
	<p>1,158–1,178: Gravelly sand (gS); fine to very coarse sand and gravel &lt;10mm with minor clay; poorly sorted; angular to subrounded; yellowish brown (10YR 5/4).</p>		<p>1,298–1,318: Silty sand (zS); very fine to coarse sand and silt; poorly sorted; subangular to subrounded; dark gray (2.5Y 4/1).</p>
	<p>1,178–1,198: Slightly gravelly sand ((g)S); fine to coarse sand and gravel &lt;10mm with minor clay; poorly sorted; subangular to subrounded; yellowish brown (10YR 5/4).</p>		<p>1,318–1,338: Sand (S); very fine to fine sand; well sorted; subangular to subrounded; dark gray (2.5Y 4/1).</p>
	<p>1,198–1,218: Sand (S); fine to medium sand; well sorted; subangular to subrounded; dark gray (2.5Y 4/1).</p>		<p>1,338–1,358: Silty sand (zS); very fine to coarse sands, silt and minor clay; poorly sorted; subangular to subrounded; dark gray (2.5Y 4/1); <i>minor fragments of shells.</i></p>
	<p>1,218–1,238: Sand (S); fine to medium sand; well sorted; subangular to subrounded; yellowish brown (10YR 5/4).</p>		<p>1,358–1,378: Clayey silty sand (mS); very fine to fine sand with silt and clay; poorly sorted; subangular to subrounded; dark gray (2.5Y 4/1); <i>minor shell fragments.</i></p>
	<p>1,238–1,258: Sand (S); very fine to fine sand with minor medium sand; well sorted; subangular to subrounded; dark gray (2.5Y 4/1).</p>		<p>1,378–1,398: Sand (S); very fine to fine sand with minor silt; well sorted; subangular to subrounded; dark gray (2.5Y 4/1).</p>

**Figure 18F.** Lithologic descriptions and photographs of **sieve** drill cuttings collected from the borehole at 16 USGS multiple-depth, monitoring-well sites in San Diego County, California, 1995, 2003–2017: (A) SDCD; (B) SDSY; (C) SDLH; (D) SDAQ; (E) SDPC; **(F) SDBP**; (G) SDHF; (H) SDEP; (I) SDNB; (J) SDSW; (K) SDMC; (L) SLDL; (M) SDCC; (N) SDOR; (O) SDOT; and (P) SDBW. —Continued.

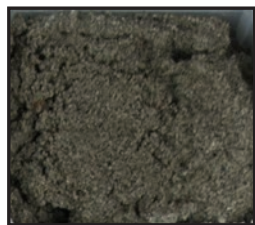
Depth interval (feet) and description



1,398–1,418: Sand (S); very fine to fine sand with minor silt; well sorted; subangular to subrounded; dark gray (2.5Y 4/1).



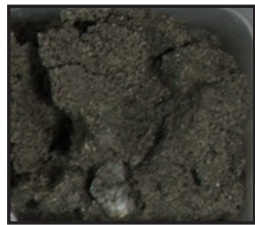
1,418–1,438: Sand (S); very fine to fine sand with minor silt; well sorted; subangular to subrounded; dark gray (2.5Y 4/1).



1,438–1,458: Sand (S); very fine to fine sand with medium sand and silt; moderately sorted; subangular to subrounded; dark gray (2.5Y 4/1).



1,458–1,478: Sand (S); fine to medium sand; moderately sorted; subangular to subrounded; dark gray (2.5Y 4/1).



1,478–1,498: Sand (S); very fine to medium sand and minor silt; moderately sorted; subangular to subrounded; dark gray (2.5Y 4/1).

1,498–1,501: *Core 1.*

**Figure 18F.** Lithologic descriptions and photographs of **sieve** drill cuttings collected from the borehole at 16 USGS multiple-depth, monitoring-well sites in San Diego County, California, 1995, 2003–2017: (A) SDCD; (B) SDSY; (C) SDLH; (D) SDAQ; (E) SDCP; **(F) SDBP**; (G) SDHF; (H) SDEP; (I) SDNB; (J) SDSW; (K) SDMC; (L) SLDL; (M) SDCC; (N) SDOR; (O) SDOT; and (P) SDBW. —Continued.