
APPENDIX L

**SAN DIEGO NATURAL HISTORY MUSEUM
PALEONTOLOGICAL RECORDS SEARCH**



SAN DIEGO NATURAL HISTORY MUSEUM

BALBOA PARK - SAN DIEGO SOCIETY OF NATURAL HISTORY - ESTABLISHED 1874

30 June 2015

J. D. Stewart
AECOM
401 West A Street
Suite 1200
San Diego, CA 92101

RE: Paleontological Record Search – Stadium Reconstruction Project (Project Number 60431885).

Dear Mr. Stewart:

This letter presents the results of a paleontological record search conducted for the Stadium Reconstruction project (Project Number 60431885). The project is located in the Mission Valley East Neighborhood and Mission Valley Community Plan Area of the City of San Diego. The project sits on approximately 171 acres, with an approximate perimeter of 2.34 miles. The project is centered on the site of the current Qualcomm Stadium, and is bounded to the north by Friars Road, to the east by Interstate 15, and to the south by the San Diego River.

Published geological reports (Kennedy, 1975) that cover the project area reveal that the proposed project site is underlain by Holocene-age (less than 10,000 years old) alluvium and slopewash, and late Pleistocene-age (approximately 10,000 to 500,000 years old) unnamed stream terrace deposits.

Site records housed in the Department of Paleontology at the San Diego Natural History Museum document twenty-nine fossil collecting localities within a one-mile radius of the project site (see attached map and abbreviated locality descriptions). Ten of these localities were found in the marine deposits of the Pliocene-age (approximately 1.5 to 3 million years old) San Diego Formation. Recovered fossils include shell remains and internal molds of marine invertebrates (e.g., barnacles, crabs, ostracods, bryozoans, sand dollars, snails, mussels, clams, and tusk shells), fossilized remains of marine vertebrates (e.g., fish, rays, sharks, seals, dolphins, porpoises, whales, and sea cows), and fossilized remains of terrestrial vertebrates (e.g., birds). Four localities were discovered in fluvial deposits of the middle Eocene-age (approximately 43 million years old) Mission Valley Formation. These localities produced shell remains and molds of marine invertebrates (e.g., barnacles, crustaceans, ostracods, snails, clams, mussels, oysters, tusk shells, and foraminifera), fossilized bones of marine vertebrates (e.g., fish, rays, sharks, and sea turtles), and mineralized remains of terrestrial vertebrates (e.g., oreodonts). Four localities were discovered in fluvial deposits of the middle Eocene-age (approximately 42 to 44 million years old) Stadium Conglomerate. Recovered fossils include shell remains and molds of marine invertebrates (e.g., snails, foraminifera, and urchins), and fossilized remains of terrestrial vertebrates (e.g., artiodactyls, bats, insectivores, arboreal gliding mammals, opossums, primates,

rodents, and reptiles). The remaining eleven localities were discovered in fluvial deposits of the middle Eocene-age (approximately 45 to 46 million years old) Friars Formation. These localities produced internal molds of invertebrates (e.g., snails), and fossilized remains of terrestrial vertebrates (e.g., frogs, birds, artiodactyls, bats, insectivores, opossums, brontotheres, primates, rodents, turtles, crocodilians, and lizards).

The Holocene-age alluvium and slopewash deposits underlying some portions of this project site are given a low paleontological sensitivity, due to their young age. Any biological remains found in these deposits are likely to be modern to sub-fossil and of no paleontological value. However, given the known moderate paleontological sensitivity of the unnamed stream terrace deposits underlying the bulk of this project site in San Diego County (Deméré and Walsh, 1993), and the proven fossil occurrences in the immediate project area, it is suggested that any proposed excavation activities that extend deep enough to encounter previously undisturbed deposits of the unnamed stream terrace deposits have the potential to cause impacts to paleontological resources preserved in these deposits. Important terrestrial vertebrate fossil assemblages have been recovered from these same unnamed stream terrace deposits only 1.2 miles west of the proposed project site. These localities lay just outside of the 1-mile buffer used for this records search. Recovered fossils from these localities include those of paleo llama, deer, horse, camel, and sloth. For the reasons described above, implementation of a complete paleontological resource mitigation program during construction is strongly recommended.

The information contained within this paleontological record search should be considered private and is the sole property of the San Diego Natural History Museum. Any use or reprocessing of information contained within this document beyond the scope of the Stadium Reconstruction project (Project Number 60431885) is prohibited.

If you have any questions concerning these findings please feel free to contact me at 619-255-0320 or nanderson@sdnhm.org.

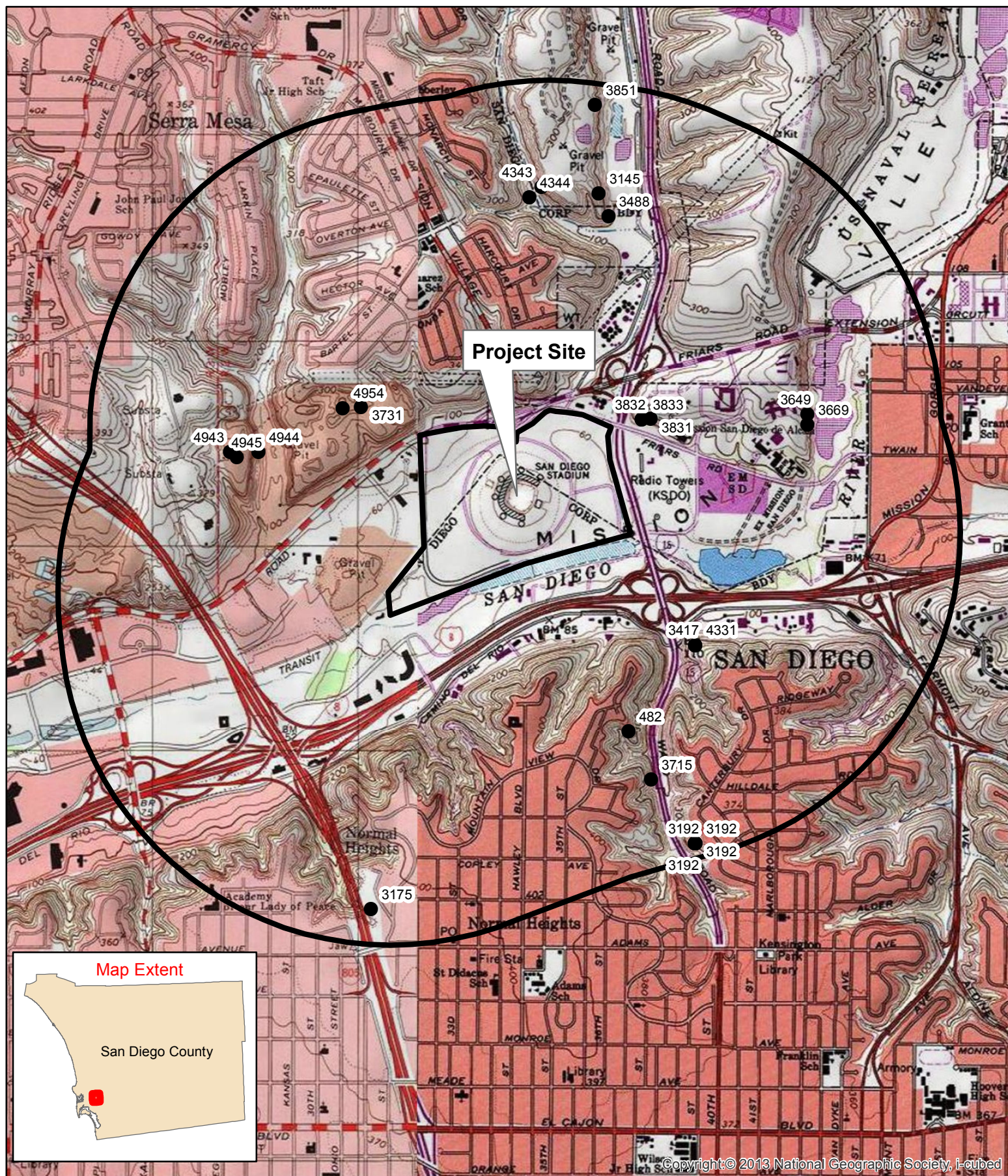
Sincerely,



Nikki Anderson
Lead Fossil Preparator
Department of PaleoServices

Literature Cited:

- Deméré, T.A. and Walsh, S.L. 1993. Paleontological Resources, County of San Diego. Prepared for the San Diego Planning Commission: 1-68.
- Kennedy, M.P. 1975. Geology of the Western San Diego Metropolitan area, California. California Division of Mines and Geology Bulletin. 200-A:1-39.



SDNHM fossil localities within one mile of the Stadium Reconstruction project (Base maps USGS Topographic Maps of the La Jolla and La Mesa 7.5' Quadrangles, California).

0 1 Miles



DATE 06/30/15
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SAN DIEGO NATURAL HISTORY MUSEUM
DEPARTMENT OF PALEONTOLOGY
LOCALITY LIST

PAL120

NUMBER	---LOCALITY NAME AND GEOGRAPHIC LOCATION---	-----ROCK AND TIME UNITS-ROCK TYPE-FIELD NOTES-----	-----COLLECTORS-COMPILED BY-ENTERED BY-DONOR-----
482	40th St. Extension San Diego San Diego Co. CA U.S.A. 32°46'22"N--117° 6'47"W La Mesa, CA 1:24000 USGS 1967	San Diego Formation Cenozoic Quaternary late Pleistocene sdst-	J.W. Tobiska 29 Jul 1978 Jan W. Tobiska 31 Jul 1978 H.P. Don Vito 19 Jan 1995 0 0
3175	Adams Avenue Bridge - I-805 San Diego San Diego Co. CA U.S.A. 32°45'54"N--117° 7'36"W La Jolla, CA 1:24000 USGS 1967/1975	San Diego Formation lower member Cenozoic Neogene Pliocene Blancan sdst-	R.H. Norwood 0 1972 T.A. Demere 30 Sep 1983 H.P. Don Vito 11 May 1995 R.H. Norwood 0 1982
3192	40th Street San Diego San Diego Co. CA U.S.A. 32°46' 4"N--117° 6'35"W La Mesa, CA 1:24000 USGS 1967/1975	San Diego Formation Cenozoic Neogene Pliocene Blancan sdst-	various (see specimen cards) 0 0 T.A. Demere 29 Jul 1987 H.P. Don Vito 11 May 1995 0 0
3192A	40th Street San Diego San Diego Co. CA U.S.A. 32°46' 4"N--117° 6'35"W La Mesa, CA 1:24000 USGS 1967/1975	San Diego Formation Cenozoic Neogene Pliocene Blancan sdst-marine	various (see specimen cards) 0 0 T.A. Demere 29 Jul 1987 H.P. Don Vito 25 Apr 1997 0 0
3192B	40th Street San Diego San Diego Co. CA U.S.A. 32°46' 4"N--117° 6'35"W La Mesa, CA 1:24000 USGS 1967/1975	San Diego Formation Cenozoic Neogene Pliocene Blancan sdst-marine	various (see specimen cards) 0 0 T.A. Demere 29 Jul 1987 H.P. Don Vito 25 Apr 1997 0 0
3192C	40th Street San Diego San Diego Co. CA U.S.A. 32°46' 4"N--117° 6'35"W La Mesa, CA 1:24000 USGS 1967/1975	San Diego Formation Cenozoic Neogene Pliocene Blancan sdst-marine	R.A. Cerutti and C.P. Majors 0 0 T.A. Demere 29 Jul 1987 H.P. Don Vito 25 Apr 1997 0 0
3192D	40th Street San Diego San Diego Co. CA U.S.A. 32°46' 4"N--117° 6'35"W La Mesa, CA 1:24000 USGS 1967/1975	San Diego Formation Cenozoic Neogene Pliocene Blancan sdst-marine	R.A. Cerutti and C.P. Majors 0 0 T.A. Demere 29 Jul 1987 H.P. Don Vito 25 Apr 1997 0 0
3192E	40th St. at I-15-North of Adams Ave. Bridge San Diego San Diego Co. CA U.S.A. 32°46' 4"N--117° 6'35"W La Mesa, CA 1:24000 USGS 1967/1975	San Diego Formation Cenozoic Neogene Pliocene Blancan sdst-marine	various (see specimen cards) 0 0 T.A. Demere 29 Jul 1987 H.P. Don Vito 25 Apr 1997 0 0
3192F	40th Street San Diego San Diego Co. CA U.S.A. 32°46' 4"N--117° 6'35"W La Mesa, CA 1:24000 USGS 1967/1975	San Diego Formation Cenozoic Neogene Pliocene Blancan sdst-marine	Paul Majors 12 Jun 1996 T.A. Demere 29 Jul 1987 H.P. Don Vito 25 Apr 1997 0 0
3192G	40th Street San Diego San Diego Co. CA U.S.A. 32°46' 4"N--117° 6'35"W La Mesa, CA 1:24000 USGS 1967/1975	San Diego Formation Cenozoic Neogene Pliocene Blancan sdst-marine	various (see specimen cards) 0 0 T.A. Demere 29 Jul 1987 H.P. Don Vito 25 Apr 1997 0 0
3417	I-8 and I-15 San Diego San Diego Co. CA U.S.A. 32°46'35"N--117° 6'35"W La Mesa, CA 1:24000 USGS 1967	Poway Group Mission Valley Formation Cenozoic Paleogene middle Eocene late Uintan sdst-	S.L. Walsh and R.A. Cerutti 0 0 S.L. Walsh 16 Jan 1988 H.P. Don Vito 24 Feb 1995 0 0
3715	115/40th Street San Diego San Diego Co. CA USA 32°46'14"N--117° 6'43"W La Mesa, CA 1:24000 USGS 1967(1975)	Poway Group Mission Valley Formation Cenozoic Paleogene middle Eocene late Uintan sdst-fluvial	R.A. Cerutt 18 May 1992 K.A. Randall 23 May 2003 K.A. Randall 23 May 2003 Caltrans 18 May 1992
4331	I-15 & 40th Street San Diego San Diego Co. CA U.S.A. 32°46'35"N--117° 6'35"W La Mesa, CA 1:24000 USGS 1967(1975)	Poway Group Mission Valley Formation Cenozoic Paleogene middle Eocene late Uintan -	R.A. Cerutti 29 May 1997 R.A. Cerutti 21 May 1999 K.A. Randall 23 May 2003 CalTrans 29 May 1997

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NUMBER	---LOCALITY NAME AND GEOGRAPHIC LOCATION---	-----ROCK AND TIME UNITS-ROCK TYPE-FIELD NOTES-----	-----COLLECTORS-COMPILED BY-ENTERED BY-DONOR-----
4919	I15/40th Street San Diego San Diego Co. CA USA 32°46'24"N--117° 6'43"W La Mesa, CA 1:24000 USGS 1967(1975)	Poway Group Mission Valley Formation Cenozoic Paleogene middle Eocene late Uintan sdst-fluvial RQG	R.Q. Gutzler 29 Oct 1996 R.Q. Gutzler 18 May 1999 K.A. Randall 23 May 2003 Caltrans 29 Oct 1996
3731	H.G. Fenton Quarry San Diego San Diego Co. CA U.S.A. 32°47'13"N--117° 7'37"W La Jolla, CA 1:24000 USGS 1967/1975	Poway Group Stadium Conglomerate lower member Cenozoic Paleogene middle Eocene late Uintan sltst-fluvial SLW Notebook 6 p. 67 and Notebook 8 pp. 1-2	S.L. Walsh and T.A. Demere 22 Mar 1994 S.L. Walsh 13 Apr 1995 H.P. Don Vito 26 May 1995 H.G. Fenton Materials Co. 22 Mar 1994
4943	Mission City North Site 3 San Diego San Diego Co. CA U.S.A. 32°47' 6"N--117° 8' 2"W La Jolla, CA 1:24000 USGS 1967(1975)	Poway Group Stadium Conglomerate lower member Cenozoic Paleogene middle Eocene late Uintan sltst-fluvial S.L. Walsh Notebook #10	S. Walsh, R. Cerutti 30 Jul 2002 S.L. Walsh 26 Aug 2004 S.L. Walsh 26 Aug 2004 H.G. Fenton Company 30 Jul 2002
4945	Mission City North Site 3-E San Diego San Diego Co. CA USA 32°47' 5"N--117° 8' 1"W La Jolla, CA 1:24000 USGS 1967(1975)	Poway Group Stadium Conglomerate lower member Cenozoic Paleogene middle Eocene late Uintan sltst-fluvial S.L. Walsh Notebook #10	S. Walsh, R. Gutzler, M. Roeder 23 Aug 2002 S.L. Walsh 30 Aug 2004 S.L. Walsh 30 Aug 2004 H.G. Fenton Company 23 Aug 2002
4954	Mission City North Site 1A+1B San Diego San Diego Co. CA USA 32°47'13"N--117° 7'41"W La Jolla, CA 1:24000 USGS 1975PR	Poway Group Stadium Conglomerate lower member Cenozoic Paleogene middle Eocene early Uintan sdst-fluvial-deltaic? S.L. Walsh Notebook #10	S.L. Walsh 19 Jul 2002 S.L. Walsh 22 Sep 2004 S.L. Walsh 22 Sep 2004 H.G. Fenton Company 19 Jul 2002
3145	Murphy Canyon San Diego San Diego Co. CA U.S.A. 32°47'47"N--117° 6'53"W La Mesa, CA 1:24000 USGS 1967/1975	La Jolla Group Friars Formation Cenozoic Paleogene middle Eocene early Uintan sdst-	R.M. and K.M. Chandler 4 Apr 1981 R.M. Chandler 1 Jul 1981 H.P. Don Vito 9 May 1995 0 0
3488	Unocal Cut Slope San Diego San Diego Co. CA U.S.A. 32°47'43"N--117° 6'51"W La Mesa, CA 1:24000 USGS 1967	La Jolla Group Friars Formation Cenozoic Paleogene middle Eocene early Uintan sdst-fluvial SLW	S.L. Walsh, B.O. Riney, C.P. Majors, M.W. Colbert 28 Dec 1989 T.A. Demere 16 Nov 1992 0 0 0 0
3649	San Diego Mission 1 San Diego San Diego Co. CA U.S.A. 32°47'12"N--117° 6'14"W La Mesa, CA 1:24000 USGS 1975PR	La Jolla Group Friars Formation Cenozoic Paleogene middle Eocene early Uintan sdst, pbly-fluvial channel base SLW Notebook #5	S.L. Walsh, C.P. Majors, M.W. Colbert 21 Jul 1991 S.L. Walsh 22 Apr 1992 CPM, SLW 13 Oct 1993 0 0
3669	San Diego Mission 2 San Diego San Diego Co. CA U.S.A. 32°47'10"N--117° 6'14"W La Mesa, CA 1:24000 USGS 1975PR	La Jolla Group Friars Formation Cenozoic Paleogene middle Eocene early Uintan pebb cong-fluvial channel base S.L. Walsh Notebook #7, 6 Oct 1993 entry	S.L. Walsh 6 Oct 1993 S.L. Walsh 13 Oct 1993 S.L. Walsh 13 Oct 1993 0 0
3831	Mission Terrace San Diego San Diego Co. CA U.S.A. 32°47'11"N--117° 6'44"W La Mesa, CA 1:24000 USGS 1975PR	La Jolla Group Friars Formation Cenozoic Paleogene middle Eocene early Uintan sdst-fluvial S.L. Walsh Notebook #8, p. 63-64; 82-84	S.L. Walsh, R.A. Cerutti 12 Sep 1994 S.L. Walsh 26 Dec 1994 S.L. Walsh 26 Dec 1994 Mission Terrace Associates 12 Sep 1994
3832	Mission Terrace San Diego San Diego Co. CA U.S.A. 32°47'11"N--117° 6'45"W La Mesa, CA 1:24000 USGS 1975PR	La Jolla Group Friars Formation Cenozoic Paleogene middle Eocene early Uintan sdst-fluvial S.L. Walsh Notebook #8, p. 66	S.L. Walsh, R.A. Cerutti 12 Sep 1994 S.L. Walsh 26 Dec 1994 S.L. Walsh 26 Dec 1994 Mission Terrace Associates 12 Sep 1994
3833	Mission Terrace San Diego San Diego Co. CA U.S.A. 32°47'11"N--117° 6'45"W La Mesa, CA 1:24000 USGS 1975PR	La Jolla Group Friars Formation Cenozoic Paleogene middle Eocene early Uintan sdst-fluvial S.L. Walsh Notebook #8, p. 84-86	S.L. Walsh, B.O. Riney, C.P. Majors 26 Oct 1994 S.L. Walsh 26 Dec 1994 S.L. Walsh 26 Dec 1994 Mission Terrace Associates 26 Oct 1994
3851	Stoncrest Square site 11 San Diego San Diego Co. CA U.S.A. 32°48' 0"N--117° 6'54"W La Mesa, CA 1:24000 USGS 1975PR	La Jolla Group Friars Formation Cenozoic Paleogene middle Eocene early Uintan sdst-fluvial S.L. Walsh Notebook #9, p. 31.	B.O. Riney 29 Mar 1995 S.L. Walsh 6 Apr 1995 S.L. Walsh 6 Apr 1995 Gatlin Development 29 Mar 1995

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NUMBER	---LOCALITY NAME AND GEOGRAPHIC LOCATION---	-----ROCK AND TIME UNITS-ROCK TYPE-FIELD NOTES-----	-----COLLECTORS-COMPILED BY-ENTERED BY-DONOR-----
4343	Stonecrest Village, Phase II San Diego San Diego Co. CA U.S.A. 32°47'47"N--117° 7' 4"W La Mesa, CA 1:24000 USGS 1975 PR	La Jolla Group Friars Formation Cenozoic Paleogene middle Eocene early Uintan sdst-fluvial no	David N. Stevens, Sean S. Gallagher 7 Oct 1997 S.L. Walsh 11 Aug 1999 S.L. Walsh 11 Aug 1999 California Pacific Homes 16 Jun 1999
4344	Stonecrest Village, Phase 2 San Diego San Diego Co. CA U.S.A. 32°47'46"N--117° 7' 6"W La Mesa, CA 1:24000 USGS 1975PR	La Jolla Group Friars Formation Cenozoic Paleogene middle Eocene early Uintan sdst-fluvial no	Juanita R. Shinn 29 Aug 1997 S.L. Walsh 13 Jun 2000 S.L. Walsh 13 Jun 2000 California Pacific Homes 16 Jun 1999
4944	Mission City North Site 4 San Diego San Diego Co. CA USA 32°47' 6"N--117° 7'56"N La Jolla, CA 1:24000 USGS 1975PR	La Jolla Group Friars Formation Cenozoic Paleogene middle Eocene early Uintan sltst-fluvial S.L. Walsh Notebook #10	S.L. Walsh 19 Aug 2002 S.L. Walsh 9 Sep 2004 S.L. Walsh 9 Sep 2004 H.G. Fenton Company 19 Aug 2002