

Archaeological Context and Research Design for

Native American Resources in the Los Angeles Basin

Caltrans District 7 and 12

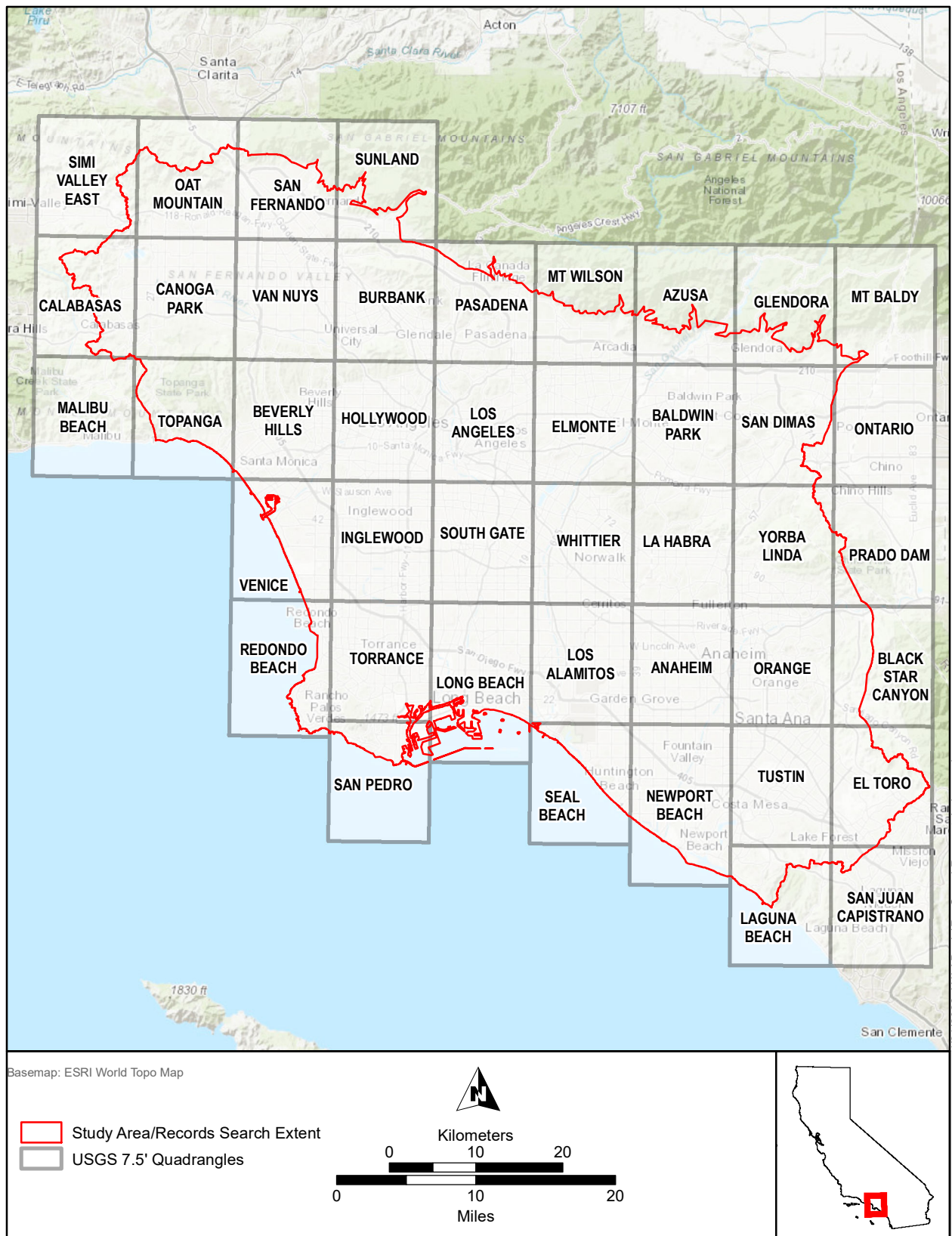


APPENDIX A

LIST OF 7.5-MINUTE USGS QUADRANGLES WITHIN THE STUDY AREA

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Anaheim	Sunland
Azusa	Topanga
Baldwin Park	Torrance
Beverly Hills	Tustin
Black Star Canyon	Van Nuys
Burbank	Venice
Calabasas	Whittier
Canoga Park	Yorba Linda
El Toro	
Elmonte	
Glendora	
Hollywood	
Inglewood	
La Habra	
Laguna Beach	
Long Beach	
Los Alamitos	
Los Angeles	
Malibu Beach	
Mt Baldy	
Mt Wilson	
Newport Beach	
Oat Mountain	
Ontario	
Orange	
Pasadena	
Prado Dam	
Redondo Beach	
San Dimas	
San Fernando	
San Juan Capistrano	
San Pedro	
Seal Beach	
Simi Valley	
South Gate	



APPENDIX B

NAMES AND LOCATIONS OF ETHNOHISTORIC RANCHERÍAS

Appendix B - Names and Locations of Ethnohistoric Rancherías

Name of Rancheria/Cognates (alphabetical)	Source ^{1,2}	Suggested Locations
"ranchería de esta misión" (Mission San Fernando)	ECPP Database (MSF)	-
"ranchería de esta misión" (Mission San Gabriel)	ECPP Database (MSG)	-
Achoicominga/Achois Comihabit	Northwest Economic Associates and King 2004	Village which became the site of San Fernando Mission
Acurag-na/Acurabit, Akuuronga, Akurangna	Reid 1968	Near the dam, between La Presa Street and San Gabriel Boulevard, on the northern side of Huntington Drive ³ , north of Mission San Gabriel ⁴ , The Presa (dam) ⁶
Ahwiinga/Ajuibit	Northwest Economic Associates and King 2004	Rancho La Puente ⁴
Ajubquebit/Asucsabit	ECPP Database (MSG)	-
Ajuibit	ECPP Database (MSG)	-
Aleupkig-na/Alcupkig-na Almpquia-na, Aluupkenga, Ahapchingas	Reid 1968	Arcadia, Sierra Madre area ³ , Santa Anita ⁶
Asucsag-na/ Asucsabit, Acuzabit, Ashuukshanga	Reid 1968	South of the mouth of San Gabriel River canyon ³ , Azusa ⁶
Awig-na/Ahuig-na Awizna, Ajuibit, Ajuinga, Ahwiinga, Ajuenga	Reid 1968	Puente Hills ³ , La Puente ⁶
Cabuepet/Cahuenga/Cabuenga	ECPP Database (MSG); King 2004	Universal City near Cahuenga Pass ⁴
Cabuepet/Cahuenga/Cabuenga/Caguenga	ECPP Database (MSF)	-
Cahueng-na/Cabueg-na Cabuepet, Cabuenga, Caguenga/Caliuenga	Reid 1968	At Universal City, near Cahuenga Pass ^{3,4} , Caliuenga ⁶
Calabazas	ECPP Database (MSF)	-
Ceegenga	ECPP Database (MSF)	-
Chaguayabit/Chaguayanga/Tacuyam	ECPP Database (MSF)	-
Chaubit	ECPP Database (MSG)	-
Chechebe/Sesébenga/Chuchbe	Northwest Economic Associates and King 2004	Aliso Canyon ⁴
Chokishg-na/Chokiishnga	Reid 1968	The "soap factory," on the west bank of the San Gabriel River, in Bell ³ , The Jabonería, Governor Gage's ⁶
Choquisbit	ECPP Database (MSG)	-
Chowig-na/Chohuig-na Chaubit, Chaubipet, Chaawvenga, Tsauvinga	Reid 1968	Near San Pedro ³ , Palos Verdes ⁶
Cocomog-na/ Cucomog-na Cucamonga, Cucamobit. Cucamobuit	Reid 1968	Rancho Cucamonga, Cucamonga Farm ⁶
El Escorpión/Jucjauybit/Huam/Huama	ECPP Database (MSF)	-
Geverobit	ECPP Database (MSG)	-
Giribit	ECPP Database (MSF)	-
Guaspet	ECPP Database (MSG)	-
Guinibit	ECPP Database (MSG)	-

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Hahamog-na/ Haahamonga, Jajamobit, Hahaonuput, Jajamonga	Reid 1968	Rancho San Rafael, north of Griffith Park ³ ; Rancho La Zanja, Portezuelo ⁴ , Rancho de los Verdugos ⁶
Harasg-na/Haraasnga	Reid 1968	San Nicolas Island? ³ , near San Pedro?
Houtg-na/ Huutnga, Jautbit	Reid 1968	Also near La Jabonería (the soap factory), Bell Gardens? ³ ; Jautbit was at El Monte ⁵ , Ranchito de Lugo ⁶
Hidakupa	Johnston 1962	San Gabriel Mountains
Humaliu/Omalu [Humaliwo]	ECPP Database (MSF)	-
Hutucg-na, Hurtucg-na/ Hotuuknga, Jutucubit, Jutubit, Jutucunga	Reid 1968	Site of the Bernardo Yorba Adobe, Santa Ana Canyon ³ , Santa Ana arriba (Yorbas) ⁶
Isanthcag-n/a Isanchanga	Reid 1968	Whittier Narrows area ³ , Mission Vieja ⁶
Jaibepet/Jaibepenga	ECPP Database (MSG)	-
Jaisobit	ECPP Database (MSG)	-
Jajamobit/Jajamovit	ECPP Database (MSG); King 2004	Near Griffith Park ⁴
Jautbit/Jaubit	ECPP Database (MSG)	-
Jaysobit/Jaisobit/Jaysavit/Jaysovit/Los Coyotes	ECPP Database (MSG)	-
Juiubit/Juyubit	ECPP Database (MSG)	-
Jutucubit/Santa Ana	ECPP Database (MSG)	-
Kinkipar, Rimkipar/ Kinki, Guinguina, Guinquipat, Kiinkenga	Reid 1968	San Clemente Island ^{3,6}
Kuruvundgna	Santa Monica Conservancy	University High School
Maobit	ECPP Database (MSF)	-
Maug-na/ Maawnga, Mauga, Mauvit	Reid 1968	Near Griffith Park, at Los Corralitos ^{3,5} , Rancho de los Felis ⁶
Momonga	Northwest Economic Associates and King 2004	CA-LAN-357 ⁴
Mujubit	ECPP Database (MSF)	-
Nacaug-na/ Naxaaw'nga	Reid 1968	Site of the Nieto Carpenter Adobe in Los Nietos ³ , Carpenter's Farm/Carpinteria Ranch ⁶
Nacauvit	ECPP Database (MSG)	-
Pachanga/Passenga	ECPP Database (MSF)	-
Pasecg-na/ Pasheeknga, Passenga, Pasecuvit, Pasiknga	Reid 1968	Just east of Mission San Fernando ^{3,5} , Porter Ranch sites ⁴ , San Fernando ⁶
Pasinog-na, Pasunog-na/ Pashiinonga	Reid 1968	Near modern Chino or near Santa Ana? ³ , Rancho del Chino ⁶
Picuvit	ECPP Database (MSG)	-
Pimocag-na/ Pimocabit	Reid 1968	Walnut (near Pomona) ³ , Los Coyotes?, Rancho de los Ybarras ⁶
Pineug-na, Pimeug-na/ Pimugna, Pimubit, Pimunga, Pumunga, Pima	Reid 1968	Santa Calatina Island ^{3,5,6}
Piybit	ECPP Database (MSF)	-

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Name of Rancheria/Cognates (alphabetical)	Source ^{1,2}	Suggested Locations
Pubug-na, Pububit, Puvuvit, Povuu'nga	Reid 1968	Site of the Rancho Los Alamitos headquarters ³ , Alamitos ⁶
Pujaubit	ECPP Database (MSF)	-
Quimisa	ECPP Database (MSF)	-
Rancho de Borregas de las Piedras	ECPP Database (MSF)	-
Rancho de la Puente	ECPP Database (MSG)	-
Rancho de Manuel Pérez	ECPP Database (MSG)	-
Rancho de Miguel Ortega	ECPP Database (MSF)	-
Rancho de Nietos	ECPP Database (MSG)	-
Rancho de San Bernardino/Junubabit	ECPP Database (MSG)	-
Rancho de San Francisco	ECPP Database (MSF)	-
Rancho de Santa Gertrudis	ECPP Database (MSG)	-
Rancho de Tapo/Tapu/Taapu/Tapuu/Tapo	ECPP Database (MSF)	-
Rancho Santa Ana	ECPP Database (MSG)	-
Sa'aangna	Reid 1968	Baldwin Hills
San Vicente	ECPP Database (MSF)	-
Sanja	ECPP Database (MSF)	-
Secpe	ECPP Database (MSF)	-
Semi/Simi/Semy/Simii	ECPP Database (MSF)	-
Seobit/Siyovit	ECPP Database (MSG)	-
Sibag-na/ Sibapet, Sibanga, Sibap, Shevaanga, Simbanga	Reid 1968	In a ravine near Mission San Gabriel ³ , San Gabriel ⁶
Sicocao	ECPP Database (MSF)	-
Sisitcanog-na/ Siutasegena, Siutcabit, Siutcanga, Siuccabit	Reid 1968	Encino ^{3,5} , Ventura and Balboa Boulevards ⁴ , or near San Marino ³ , Pear Orchard ⁶
Siutcanga	ECPP Database (MSF); King 2004	CA-LAN-43 ⁴
Soabit	ECPP Database (MSG)	-
Sonag-na/ Sonaanga	Reid 1968	Michael White ranch in South Pasadena ³ , Mr. White's farm ⁶
Suang-na/ Soabit, Suanga	Reid 1968	Long Beach ³ , Wilmington ⁴
Sumo	ECPP Database (MSF)	-
Tibahag-na, Fibahag-na/Tibajabet, Tivajavet, Tiba, Tibajanga	Reid 1968	Rancho Los Cerritos headquarters, Long Beach ³ ; Torrance ⁴ , Serritos ⁶
Tibimobit	ECPP Database (MSF)	-
Tochonanga/Tochonabit/Tochonanza	ECPP Database (MSF)	-
Toibit	ECPP Database (MSG)	-
Toybipet, Tobybipet/Toibipet, Toibit, Tooypinga	Reid 1968	Pomona area ³ ; near Los Angeles County Fairgrounds, Pomona ⁴ ; Rancho San Jose ⁶

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Tujubit/Tujungá	ECPP Database (MSF)	-
Uanga	ECPP Database (MSF)	-
Uchubit	ECPP Database (MSG)	-
Yabit	ECPP Database (MSG)	-
Yang-na/ Yanga, Yabit, Yavit, Yaanga	Reid 1968	Near the Civic Center ³ ; downtown, near Union Station, Olvera Street, and the Plaza church ⁴ ; Los Angeles ⁶

Notes: ¹Douglass and Reddy 2016; ²Stoll et al. 2016; ³McCawley 1996; ⁴Northwest Economic Associates and King 2004; ⁵Johnston 1962; ⁶Reid's Location; MSF – Mission San Fernando; MSG – Mission San Gabriel; ECPP – Early California Population Project.

APPENDIX C

SELECT HISTORIC BUILT ENVIRONMENT, ARCHAEOLOGICAL, AND ETHNOGRAPHIC RESOURCE ATTRIBUTE CODES AND ATTRIBUTE DEFINITIONS

**Appendix C. Select Historic Built Environment, Archaeological and Ethnographic
Resource Attribute Codes and Attribute Definitions (Office of Historic Preservation 1995)**

Code	Description
AH01	Unknown historic
AH02	Foundations/structure pads
AH03	Landscaping/orchard
AH04	Privies/dumps/trash scatters
AH05	Wells/cisterns
AH06	Water conveyance system
AH07	Roads/trails/railroad grades
AH08	Dams
AH09	Mines/quarries/tailings
AH10	Machinery
AH11	Walls/fences
AH12	Graves/cemetery
AH15	Standing structures
AH16	Other historic
AP01	Unknown prehistoric
AP02	Lithic scatter
AP03	Ceramic scatter
AP04	Bedrock milling feature
AP05	Petroglyphs
AP06	Pictographs
AP07	Architectural feature
AP08	Cairns/rock features
AP09	Burials
AP10	Caches
AP11	Hearths/pits
AP12	Quarry
AP13	Trails/linear earthworks
AP14	Rock shelter/cave
AP15	Habitation debris
AP16	Other prehistoric
HP02	Single family property
HP03	Multiple family property
HP04	Ancillary building
HP05	Hotel/motel
HP06	1-3 story commercial building
HP08	Industrial building
HP09	Public utility building
HP11	Engineering structure
HP13	Community center/social hall
HP15	Educational building
HP18	Train
HP19	Bridge
HP20	Canal/aqueduct
HP21	Dam

**Appendix C. Select Historic Built Environment, Archaeological and Ethnographic
Resource Attribute Codes and Attribute Definitions (Office of Historic Preservation 1995)**

Code	Description
HP22	Lake/river/reservoir
HP26	Monument/mural/gravestone
HP28	Street furniture
HP29	Landscape architecture
HP30	Trees/vegetation
HP31	Urban open space
HP32	Rural open space
HP33	Farm/ranch
HP34	Military property
HP36	Ethnic minority property
HP37	Highway/trail
HP39	Other
HP40	Cemetery
HP44	Adobe building/structure
HP46	Walls/gates/fences

APPENDIX D

RADIOCARBON DATES BY SITE AND CULTURAL PERIOD WITHIN THE STUDY AREA

Appendix D - Radiocarbon Dates by Site and Cultural Period within the Study Area.

TRINOMIAL	REGION	TERMINAL PLEISTOCEN (14600-11700 CAL BP)	EARLY HOLOCENE 1 (11,700-9950 CAL BP)	EARLY HOLOCENE 2 (9950-8200 CAL BP)	MIDDLE HOLOCENE 1 (8200-6200 CAL BP)	MIDDLE HOLOCENE 2 (6200-4200 CAL BP)	EARLY PERIOD (4200-2550 CAL BP)	MIDDLE PERIOD (2550-800 CAL BP)	LATE PERIOD (800-179 CAL BP)	SPANISH PERIOD (179-116 CAL BP)	MEXICAN PERIOD (116-102 CAL BP)	AMERICAN PERIOD (102-0 CAL BP)	TOTAL
CA-LAN-0001	Los Angeles Coastal				2	1							3
CA-LAN-0002	Los Angeles Coastal						1	1					2
CA-LAN-0008	Los Angeles Coastal						2						2
CA-LAN-0043	San Fernando Valley					3		28	17	4			52
CA-LAN-0047	Los Angeles Coastal							1	7	1			9
CA-LAN-0054	Los Angeles Coastal						11	9					20
CA-LAN-0059	Los Angeles Coastal								2			1	3
CA-LAN-0060	Los Angeles Coastal							2					2
CA-LAN-0061	Los Angeles Coastal						1	10	2			2	15
CA-LAN-0062	Los Angeles Coastal				3	10	14	37	28	1			93
CA-LAN-0063	Los Angeles Coastal							2					2
CA-LAN-0064	Los Angeles Coastal							1					1
CA-LAN-0133	Los Angeles Coastal								3	1		1	5
CA-LAN-0138	Los Angeles Coastal				4			2	5				11
CA-LAN-0159	Los Angeles Coastal		4			1							5
CA-LAN-0167	San Fernando Valley							1					1
CA-LAN-0171	Los Angeles Coastal	1		1	2	9	1						14
CA-LAN-0172	Los Angeles Coastal						1						1
CA-LAN-0193	Los Angeles Coastal						2	15					17
CA-LAN-0206	Los Angeles Coastal				1								1
CA-LAN-0211/H	Los Angeles Coastal						1	23	12	3	3	3	45
CA-LAN-0215	Los Angeles Coastal							1					1
CA-LAN-0235	Los Angeles Coastal						2	2					4
CA-LAN-0254	San Fernando Valley					4	13	2					19
CA-LAN-0270	Los Angeles Coastal						1	1	1				3
CA-LAN-0274	Los Angeles Coastal											1	1
CA-LAN-0291	Los Angeles Coastal						5	1					6
CA-LAN-0629	San Fernando Valley								1				1
CA-LAN-0702	Los Angeles Coastal						3	3	1				7
CA-LAN-0705	Los Angeles Coastal								18				18
CA-LAN-0844	Los Angeles Coastal				1		1	2	1				5
CA-LAN-0845	Los Angeles Coastal						1						1

Appendix D - Radiocarbon Dates by Site and Cultural Period within the Study Area.

TRINOMIAL	REGION	TERMINAL PLEISTOCEN (14600-11700 CAL BP)	EARLY HOLOCENE 1 (11,700-9950 CAL BP)	EARLY HOLOCENE 2 (9950-8200 CAL BP)	MIDDLE HOLOCENE 1 (8200-6200 CAL BP)	MIDDLE HOLOCENE 2 (6200-4200 CAL BP)	EARLY PERIOD (4200-2550 CAL BP)	MIDDLE PERIOD (2550-800 CAL BP)	LATE PERIOD (800-179 CAL BP)	SPANISH PERIOD (179-116 CAL BP)	MEXICAN PERIOD (116-102 CAL BP)	AMERICAN PERIOD (102-0 CAL BP)	TOTAL
CA-LAN-0850	Los Angeles Coastal					2	1					1	4
CA-LAN-0999	Los Angeles Coastal								1	1			2
CA-LAN-1000	Los Angeles Coastal								2	1			3
CA-LAN-1002	Los Angeles Coastal							5					5
CA-LAN-1060	San Fernando Valley									1		1	2
CA-LAN-1144	Los Angeles Coastal							6					6
CA-LAN-1311H	Los Angeles Coastal							1					1
CA-LAN-1522	Los Angeles Coastal						1						1
CA-LAN-1575/H	Los Angeles Coastal							1	3	3			7
CA-LAN-2253	Los Angeles Coastal					2							2
CA-LAN-2345	Los Angeles Coastal						1						1
CA-LAN-2616	Los Angeles Coastal							1	14				15
CA-LAN-2629	Los Angeles Coastal							5					5
CA-LAN-2630	Los Angeles Coastal								48				48
CA-LAN-2757	Los Angeles Coastal								1				1
CA-LAN-2768	Los Angeles Coastal						1	21	1				23
CA-LAN-2792	Los Angeles Coastal							2	1				3
CA-LAN-2796	Los Angeles Coastal								1				1
CA-LAN-2801	Los Angeles Coastal						1			1			2
CA-ORA-	Orange Coastal				1		3						4
CA-ORA-0044	Orange Coastal						1	1					2
CA-ORA-0051	Orange Coastal								1				1
CA-ORA-0057	Orange Coastal							2					2
CA-ORA-0058	Orange Coastal						2	6					8
CA-ORA-0064	Orange Coastal			25	30	9	1						65
CA-ORA-0082	Orange Coastal						1						1
CA-ORA-0083	Orange Coastal			14	79	36	15	12	1				157
CA-ORA-0084	Orange Coastal					5							5
CA-ORA-0085	Orange Coastal						2						2
CA-ORA-0099	Orange Coastal				1		3	4					8
CA-ORA-0100	Orange Coastal								1				1
CA-ORA-0106	Orange Coastal							19	10				29

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CA-ORA-0111	Orange Coastal								1				1
CA-ORA-0116	Orange Coastal					1		19					20
CA-ORA-0119	Orange Coastal				1		2	13	10				26
CA-ORA-0121	Orange Coastal				2		1	5					8
CA-ORA-0124	Orange Coastal						1	3	2				6
CA-ORA-0130	Orange Coastal					2	1		3				6
CA-ORA-0149	Orange Coastal					1	3	6					10
CA-ORA-0166	Orange Coastal							2					2
CA-ORA-0167	Orange Coastal								1				1
CA-ORA-0170	Orange Coastal						2	6					8
CA-ORA-0174	Orange Coastal							2	1				3
CA-ORA-0183	Orange Coastal					3	3	3					9
CA-ORA-0185	Orange Coastal						1	3					4
CA-ORA-0190	Orange Coastal							2	1				3
CA-ORA-0193	Orange Coastal							3	1				4
CA-ORA-0195	Orange Coastal					1		2	1				4
CA-ORA-0196	Orange Coastal				1		1						2
CA-ORA-0197	Orange Coastal						2	1	1			2	6
CA-ORA-0203	Orange Coastal								2			3	5
CA-ORA-0206	Orange Coastal							15	5				20
CA-ORA-0221	Orange Coastal							2	1				3
CA-ORA-0225	Orange Coastal						2	30	11				43
CA-ORA-0227	Orange Coastal								6				6
CA-ORA-0231	Orange Coastal								2	1		3	6
CA-ORA-0232	Orange Coastal							1	5			2	8
CA-ORA-0236	Orange Coastal							2	1				3
CA-ORA-0244	Orange Coastal							2	1	1			4
CA-ORA-0246	Orange Coastal			3	1								4
CA-ORA-0260	Orange Coastal					3	4	2					9
CA-ORA-0261	Orange Coastal							10					10
CA-ORA-0262	Orange Coastal					3	1	3	4			1	12
CA-ORA-0263	Orange Coastal					10	11	18	1				40

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TRINOMIAL	REGION	TERMINAL PLEISTOCEN (14600-11700 CAL BP)	EARLY HOLOCENE 1 (11,700-9950 CAL BP)	EARLY HOLOCENE 2 (9950-8200 CAL BP)	MIDDLE HOLOCENE 1 (8200-6200 CAL BP)	MIDDLE HOLOCENE 2 (6200-4200 CAL BP)	EARLY PERIOD (4200-2550 CAL BP)	MIDDLE PERIOD (2550-800 CAL BP)	LATE PERIOD (800-179 CAL BP)	SPANISH PERIOD (179-116 CAL BP)	MEXICAN PERIOD (116-102 CAL BP)	AMERICAN PERIOD (102-0 CAL BP)	TOTAL
CA-ORA-0264	Orange Coastal					6	13	4	2				25
CA-ORA-0269	Orange Coastal							2	1				3
CA-ORA-0270	Orange Coastal								2				2
CA-ORA-0271	Orange Coastal									1		1	2
CA-ORA-0272	Orange Coastal								2				2
CA-ORA-0274	Orange Coastal								10	3		3	16
CA-ORA-0275	Orange Coastal									1		4	5
CA-ORA-0287	Orange Coastal						2		2				4
CA-ORA-0294	Orange Coastal							1					1
CA-ORA-0298	Orange Coastal					1							1
CA-ORA-0305	Orange Coastal				2								2
CA-ORA-0322	Orange Coastal					1	3	3					7
CA-ORA-0323	Orange Coastal					1	2						3
CA-ORA-0337	Orange Coastal								2				2
CA-ORA-0339	Orange Coastal			2				1	1	1			5
CA-ORA-0340	Orange Coastal						1		3				4
CA-ORA-0344	Orange Coastal							1					1
CA-ORA-0350	Orange Coastal							1	2			1	4
CA-ORA-0365	Orange Coastal					4	1						5
CA-ORA-0366	Orange Coastal						1						1
CA-ORA-0368	Orange Coastal						2	1					3
CA-ORA-0378	Orange Coastal			3	6	10	8	57	8				92
CA-ORA-0379	Orange Coastal							1	1				2
CA-ORA-0383	Orange Coastal								1				1
CA-ORA-0386	Orange Coastal			1	2								3
CA-ORA-0438	Orange Coastal								1				1
CA-ORA-0482	Orange Coastal						1	3					4
CA-ORA-0499	Orange Coastal						1			1		1	3
CA-ORA-0508	Orange Coastal							3					3
CA-ORA-0518	Orange Coastal									1			1
CA-ORA-0521	Orange Coastal								1				1
CA-ORA-0545	Orange Coastal						1						1

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CA-ORA-0548	Orange Coastal							1					1
CA-ORA-0555	Orange Coastal							2	1			1	4
CA-ORA-0572	Orange Coastal								1			1	2
CA-ORA-0575	Orange Coastal							1					1
CA-ORA-0616	Orange Coastal							1					1
CA-ORA-0645	Orange Coastal						1						1
CA-ORA-0660	Orange Coastal					11	1						12
CA-ORA-0662	Orange Coastal						2	12	63	5		23	105
CA-ORA-0663	Orange Coastal								3				3
CA-ORA-0664	Orange Coastal					4	10						14
CA-ORA-0666	Orange Coastal					3	1						4
CA-ORA-0667	Orange Coastal					16	9						25
CA-ORA-0668	Orange Coastal										1		1
CA-ORA-0669	Orange Coastal								4				4
CA-ORA-0670	Orange Coastal											2	2
CA-ORA-0671	Orange Coastal							1	8		1	3	13
CA-ORA-0672	Orange Coastal								5	1		5	11
CA-ORA-0673	Orange Coastal							1	15	1	1	3	21
CA-ORA-0674	Orange Coastal							1	2	1			4
CA-ORA-0675	Orange Coastal								6			2	8
CA-ORA-0676	Orange Coastal								1			4	5
CA-ORA-0677	Orange Coastal								2				2
CA-ORA-0678	Orange Coastal											1	1
CA-ORA-0679	Orange Coastal											2	2
CA-ORA-0682	Orange Coastal								1				1
CA-ORA-0683	Orange Coastal								1	1		8	10
CA-ORA-0684	Orange Coastal						2	4	2				8
CA-ORA-0687	Orange Coastal								1			1	2
CA-ORA-0689	Orange Coastal								1			2	3
CA-ORA-0730	Orange Coastal							2	1				3
CA-ORA-0731	Orange Coastal								1				1
CA-ORA-0732	Orange Coastal							3					3

Appendix D - Radiocarbon Dates by Site and Cultural Period within the Study Area.

TRINOMIAL	REGION	TERMINAL PLEISTOCEN (14600-11700 CAL BP)	EARLY HOLOCENE 1 (11,700-9950 CAL BP)	EARLY HOLOCENE 2 (9950-8200 CAL BP)	MIDDLE HOLOCENE 1 (8200-6200 CAL BP)	MIDDLE HOLOCENE 2 (6200-4200 CAL BP)	EARLY PERIOD (4200-2550 CAL BP)	MIDDLE PERIOD (2550-800 CAL BP)	LATE PERIOD (800-179 CAL BP)	SPANISH PERIOD (179-116 CAL BP)	MEXICAN PERIOD (116-102 CAL BP)	AMERICAN PERIOD (102-0 CAL BP)	TOTAL
CA-ORA-0736	Orange Coastal								1			2	3
CA-ORA-0797	Orange Coastal				1								1
CA-ORA-0806	Orange Coastal								2				2
CA-ORA-0807	Orange Coastal								3				3
CA-ORA-0808	Orange Coastal								1				1
CA-ORA-0904	Orange Coastal							1	1				2
CA-ORA-0928	Orange Coastal						6						6
CA-ORA-0929	Orange Coastal					5	2						7
CA-ORA-1011	Orange Coastal							1					1
CA-ORA-1029	Orange Coastal								2				2
CA-ORA-1069	Orange Coastal							2	1				3
CA-ORA-1082	Orange Coastal									1		1	2
CA-ORA-1083	Orange Coastal									2			2
CA-ORA-1085	Orange Coastal							2					2
CA-ORA-1086	Orange Coastal										1	3	4
CA-ORA-1112	Orange Coastal								1				1
CA-ORA-1114	Orange Coastal							2					2
CA-ORA-1194	Orange Coastal						1						1
CA-ORA-1203	Orange Coastal								2				2
CA-ORA-1204	Orange Coastal											2	2
CA-ORA-1205	Orange Coastal								5			12	17
CA-ORA-1206	Orange Coastal								1				1
CA-ORA-1208	Orange Coastal						2	2	4			4	12
CA-ORA-1229	Orange Coastal								1				1
CA-ORA-1230	Orange Coastal								1				1
CA-ORA-1231	Orange Coastal				3								3
CA-ORA-1232	Orange Coastal								1				1
CA-ORA-1233	Orange Coastal											1	1
CA-ORA-1235	Orange Coastal								1				1
CA-ORA-1249	Orange Coastal							2	3	2		2	9
CA-ORA-1295	Orange Coastal									2		2	4
CA-ORA-1298	Orange Coastal						3	3					6

Appendix D - Radiocarbon Dates by Site and Cultural Period within the Study Area.

TRINOMIAL	REGION	TERMINAL PLEISTOCEN (14600-11700 CAL BP)	EARLY HOLOCENE 1 (11,700-9950 CAL BP)	EARLY HOLOCENE 2 (9950-8200 CAL BP)	MIDDLE HOLOCENE 1 (8200-6200 CAL BP)	MIDDLE HOLOCENE 2 (6200-4200 CAL BP)	EARLY PERIOD (4200-2550 CAL BP)	MIDDLE PERIOD (2550-800 CAL BP)	LATE PERIOD (800-179 CAL BP)	SPANISH PERIOD (179-116 CAL BP)	MEXICAN PERIOD (116-102 CAL BP)	AMERICAN PERIOD (102-0 CAL BP)	TOTAL
CA-ORA-1321	Orange Coastal								1				1
CA-ORA-1345	Orange Coastal				5	1	3	2	2				13
CA-ORA-1405	Orange Coastal			2	3	3	4	1	3				16
CA-ORA-1420	Orange Coastal								2				2
CA-ORA-1421	Orange Coastal								1				1
CA-ORA-1422	Orange Coastal								2			1	3
CA-ORA-1423	Orange Coastal							1	2				3
CA-ORA-1425	Orange Coastal								1				1
CA-ORA-1426	Orange Coastal								1				1
CA-ORA-1427	Orange Coastal								2				2
CA-ORA-1429	Orange Coastal						2						2
CA-ORA-1461	Orange Coastal							4	1				5
CA-ORA-1472	Orange Coastal					1							1
CA-ORA-1482	Orange Coastal					1							1
CA-ORA-1485	Orange Coastal								2				2
CA-ORA-1492	Orange Coastal											1	1
CA-ORA-1503	Orange Coastal								3				3
CA-ORA-1511	Orange Coastal							1					1
CA-ORA-1525	Orange Coastal							1					1
CA-ORA-1528	Orange Coastal										1		1
CA-ORA-1537	Orange Coastal							1		2			3
CA-ORA-1587	Orange Coastal								2				2
CA-ORA-1654	Orange Coastal								1			1	2
CA-ORA-1673	Orange Coastal					1							1
CA-ORA-1674	Orange Coastal				1								1
CA-ORA-1675	Orange Coastal						1						1
CA-ORA-1677	Orange Coastal					1							1
CA-ORA-1678	Orange Coastal								1				1
CA-ORA-1679	Orange Coastal						1						1
CA-ORA-1680	Orange Coastal					1							1
CA-ORA-1702	Orange Coastal							1	4				5
CA-ORA-1703	Orange Coastal								1				1

Appendix D - Radiocarbon Dates by Site and Cultural Period within the Study Area.

TRINOMIAL	REGION	TERMINAL PLEISTOCEN (14600-11700 CAL BP)	EARLY HOLOCENE 1 (11,700-9950 CAL BP)	EARLY HOLOCENE 2 (9950-8200 CAL BP)	MIDDLE HOLOCENE 1 (8200-6200 CAL BP)	MIDDLE HOLOCENE 2 (6200-4200 CAL BP)	EARLY PERIOD (4200-2550 CAL BP)	MIDDLE PERIOD (2550-800 CAL BP)	LATE PERIOD (800-179 CAL BP)	SPANISH PERIOD (179-116 CAL BP)	MEXICAN PERIOD (116-102 CAL BP)	AMERICAN PERIOD (102-0 CAL BP)	TOTAL
CA-ORA-1711	Orange Coastal							1					1
CA-VEN-1617	Orange Coastal						1						1
Total		1	4	51	152	177	216	520	465	45	8	121	1,760

Appendix D-2: Archaeological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN	CA-LAN-0001	353238	3773843	371	Fan	Topanga Tank	Unit OR1, excavated by Mosley (1960)	183	188	Shell-m, Mytilus californianus	Beta-277587	5880	40		5817	6029	6257	calib 8.10 Marine20; 70±65	Fitzgerald, Richard T. 2015	30033
LAN	CA-LAN-0001	353238	3773843	371	Fan	Topanga Tank	Unit 16R5 in 1948	15	30	Shell-m, Mytilus	Beta-457228	6430	30		6392	6610	6833	calib 8.10 Marine20; 70±65	Green 2019	32055
LAN	CA-LAN-0001	353238	3773843	371	Fan	Topanga Tank	Unit 15L1 in 1947	46	61	Shell-m, Saxidomus	Beta-457254	6280	30		6256	6447	6661	calib 8.10 Marine20; 70±65	Green 2019	32056
LAN	CA-LAN-0002	352990	3773861	353	Hill, ridge	Trippet Ranch	Composite, 3 fire pits			Charcoal	A-00094	2450	150		2145	2519	2805	calib 8.10 IntCal20	Damon, P. E. 1962, Ericson, J. E. 1972, Bright, M. 1965	7805
LAN	CA-LAN-0002	352990	3773861	353	Hill, ridge	Trippet Ranch	Fire pit			Charcoal	A-00197	2700	150		2401	2822	3170	calib 8.10 IntCal20	Damon, P. E. 1962, Ericson, J. E. 1972, Bright, M. 1965	7804
LAN	CA-LAN-0008	352033	3773232	233	Hill, slope	Topanga Library	Unit 11, TU-11-64, south of Topanga Library site, Singer et al. (1994)	64	64	Charcoal	Beta-070977, CAMS-012375	3550	60	-24.5	3645	3840	4062	calib 8.10 IntCal20	Singer, Clay A. 1994	32587
LAN	CA-LAN-0008	352033	3773232	233	Hill, slope	Topanga Library	Deposits south of present Topanga Library site, tested by Clay A. Singer and Associates (Singer et al. 1994)			Unknown, NR		3560	60		3690	3854	3988	calib 8.10 IntCal20	Singer, Clay A. 1994	28902
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Olivella bead			Shell-m, Olivella bead	Beta-115551	4990	60		4790	5028	5297	calib 8.10 Marine20; 70±65	Vellanoweth 2001	29806
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Olivella bead			Shell-m, Olivella bead	Beta-456064	5000	30	1.4	4826	5039	5276	calib 8.10 Marine20; 70±65	Fitzgerald 2017	29807
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Feature 015, depth from graded surface	60	80	Bone, collagen	UCR-1974D	980	60	-25.78	734	865	1046	calib 8.10 IntCal20	Taylor, R. E. 1986	7773
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Feature 051, depth from graded surface	140	160	Bone, acid sol. frac.	UCR-1975A	1030	100	-26.02	730	936	1176	calib 8.10 IntCal20	Taylor, R. E. 1986	7769
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Feature 054, depth from graded surface	80	100	Bone, acid sol. frac.	UCR-1976A	950	70	-25.9	693	848	972	calib 8.10 IntCal20	Taylor, R. E. 1986	7774
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Feature 074, depth from graded surface	40	60	Bone	UCR-1977	150	15	-23.71	6	147	279	calib 8.10 IntCal20	Taylor, R. E. 1986	7796
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Feature 075, depth from graded surface	70	90	Bone, acid sol. frac.	UCR-1978A	1070	60	-22.6	798	983	1175	calib 8.10 IntCal20	Taylor, R. E. 1986	7766
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Feature 090, depth from graded surface	0	20	Bone	UCR-1979	220	95	-25	1	218	455	calib 8.10 Marine20; 70±65	Taylor, R. E. 1986	7791
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Feature 126, depth from graded surface	10	20	Bone, acid sol. frac.	UCR-1980A	1160	70	-26.94	930	1077	1266	calib 8.10 IntCal20	Taylor, R. E. 1986	7761
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Feature 127, depth from graded surface	0	20	Bone, acid sol. frac.	UCR-1981A	1720	100	-25	1388	1612	1828	calib 8.10 Marine20; 70±65	Taylor, R. E. 1986	7751
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Feature 151, depth from graded surface	0	30	Bone, acid sol. frac.	UCR-1982A	1170	100	-24.45	916	1090	1293	calib 8.10 Marine20; 70±65	Taylor, R. E. 1986	7760
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Feature 122, depth from graded surface	0	30	Bone, acid sol. frac.	UCR-1990A	520	80	-29.6	330	544	666	calib 8.10 Marine20; 70±65	Taylor, R. E. 1986	7787
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	G-75, Feature 123, no depth			Bone	UCR-1991	1260	60	-25	1058	1190	1297	calib 8.10 IntCal20	Taylor, R. E. 1986	7755
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Unit 8, 50-60 cm	50	60	Charcoal	UCR-1992	150	15	-24.66	6	147	279	calib 8.10 IntCal20	Taylor, R. E. 1986	7795
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Unit 8, 60-70 cm	60	70	Charcoal	UCR-1993	210	60	-24.65	1	191	426	calib 8.10 IntCal20	Taylor, R. E. 1986	7792
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Unit 8, 80-90 cm	80	90	Charcoal	UCR-1994	485	90	-25.64	315	513	651	calib 8.10 IntCal20	Taylor, R. E. 1986	7789
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Unit 8, 90-100 cm	90	100	Charcoal	UCR-1995	550	80		467	569	672	calib 8.10 IntCal20	Taylor, R. E. 1986	7785
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Unit 8, 100-110 cm	100	110	Charcoal	UCR-1996	810	90	-24.68	564	741	920	calib 8.10 IntCal20	Taylor, R. E. 1986	7778
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Unit 8, 110-120 cm	110	120	Charcoal	UCR-1997	1050	90	-24.79	748	959	1176	calib 8.10 IntCal20	Taylor, R. E. 1986	7767
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Unit 8, 120-130 cm	120	130	Charcoal	UCR-1998	720	50	-24.66	559	666	729	calib 8.10 IntCal20	Taylor, R. E. 1986	7781
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Unit 8, 130-140 cm	130	140	Charcoal	UCR-1999	1000	90	-25.5	698	897	1175	calib 8.10 IntCal20	Taylor, R. E. 1986	7770
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Unit 8, 140-150 cm	140	150	Charcoal	UCR-2000	1250	100	-24.48	957	1160	1340	calib 8.10 IntCal20	Taylor, R. E. 1986	7757
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Unit 8, 150-160 cm	150	160	Charcoal	UCR-2001	1130	70	-24.51	918	1043	1258	calib 8.10 IntCal20	Taylor, R. E. 1986	7763
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Unit 8, 160-170 cm	160	170	Charcoal	UCR-2002	980	90	-24.7	692	873	1063	calib 8.10 IntCal20	Taylor, R. E. 1986	7772
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Unit 8, 170-180 cm	170	180	Charcoal	UCR-2003	530	60	-25.22	491	550	651	calib 8.10 IntCal20	Taylor, R. E. 1986	7786
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Unit 8, 180-190 cm	180	190	Charcoal	UCR-2004	1250	75	-25.31	976	1169	1298	calib 8.10 IntCal20	Taylor, R. E. 1986	7756
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Unit 8, 200-210 cm	200	210	Charcoal	UCR-2005	1360	100	-24.88	1006	1263	1511	calib 8.10 IntCal20	Taylor, R. E. 1986	7754
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Unit 8, 200 cm	200	200	Charcoal	UCR-2006	150	15	-24.73	6	147	279	calib 8.10 IntCal20	Taylor, R. E. 1986	7794
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Unit 20, 90-100 cm	90	100	Charcoal	UCR-2007	1220	80	-24.8	963	1139	1288	calib 8.10 IntCal20	Taylor, R. E. 1986	7759
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Unit 20, 100-110 cm	100	110	Charcoal	UCR-2008	1120	80	-24.6	827	1036	1267	calib 8.10 IntCal20	Taylor, R. E. 1986	7764
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Unit 20, 110-120 cm	110	120	Charcoal	UCR-2009	460	90	-24.8	310	488	644	calib 8.10 IntCal20	Taylor, R. E. 1986	7790
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Unit 20, 120-130 cm	120	130	Charcoal	UCR-2010	1100	90	-24.74	793	1019	1261	calib 8.10 IntCal20	Taylor, R. E. 1986	7765
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Unit 20, 130-140 cm	130	140	Charcoal	UCR-2011	1140	100	-25.76	803	1059	1285	calib 8.10 IntCal20	Taylor, R. E. 1986	7762
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Unit 20, 140-150 cm	140	150	Charcoal	UCR-2012	1030	100	-25.22	730	936	1176	calib 8.10 IntCal20	Taylor, R. E. 1986	7768
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Unit 20, 150-160 cm	150	160	Charcoal	UCR-2013	1780	70	-24.78	1532	1666	1864	calib 8.10 IntCal20	Taylor, R. E. 1986	7750
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Unit 20, 160-170 cm	160	170	Charcoal	UCR-2014	1950	85	-25.33	1643	1875	2111	calib 8.10 IntCal20	Taylor, R. E. 1986	7748
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Unit 20, 170-180 cm	170	180	Charcoal	UCR-2015	1790	100	-25.16	1416	1688	1931	calib 8.10 IntCal20	Taylor, R. E. 1986	7749
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Unit 20, 180-190 cm	180	190	Charcoal	UCR-2016	1520	100	-24.95	1193	1418	1690	calib 8.10 IntCal20	Taylor, R. E. 1986	7752
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Unit 20, 190-200 cm	190	200	Charcoal	UCR-2017	1240	80	-25	974	1157	1295	calib 8.10 IntCal20	Taylor, R. E. 1986	7758
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Unit 20, 200-210 cm	200	210	Charcoal	UCR-2018	625	100	-24.99	482	604	734	calib 8.10 IntCal20	Taylor, R. E. 1986	7784
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Unit 20, 210-220 cm	210	220	Charcoal	UCR-2019	1515	80	-24.93	1288	1406	1545	calib 8.10 IntCal20	Taylor, R. E. 1986	7753
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Unit 20, 220-230 cm	220	230	Charcoal	UCR-2020	150	15	-25.41	6	147	279	calib 8.10 IntCal20	Taylor, R. E. 1986	7793
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Trench 7, Unit 28, Feature 037, depth from graded surface	30	40	Shell-m, Haliotis	UCR-2021	1580	60	1.27	679	895	1116	calib 8.10 Marine20; 70±65	Taylor, R. E. 1986	7771
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	G-52, Feature 138, no depth			Shell-m, Haliotis	UCR-2022	1460	100	1.73	542	785	1044	calib 8.10 Marine20; 70±65	Taylor, R. E. 1986	7777
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Feature 083, 127-128 cm	127	128	Shell-m, Haliotis	UCR-2023	1270	100	0.9	390	612	882	calib 8.10 Marine20; 70±65	Taylor, R. E. 1986	7783
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Feature 092, 143 cm	143	143	Shell-m, Haliotis	UCR-2024	4570	80	1	4195	4495	4806	calib 8.10 Marine20; 70±65	Taylor, R. E. 1986	7747
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Feature 122, 166 cm	166	166	Shell-m, Haliotis	UCR-2025	1360	100	1.49	471	693	942	calib 8.10 Marine20; 70±65	Taylor, R. E. 1986	7780
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Trench 7, Unit 28, Feature 037, depth from graded surface	30	40	Bone, Canis	UCR-2026	790	100	-26.55	556	726	918	calib 8.10 IntCal20	Taylor, R. E. 1986	7779
LAN	CA-LAN-0043	361783	3780633	248	Terrace, coastal	Encino Village	Feature 046, 7 cm	7	7</											

Appendix D-2: Archaeological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN	CA-LAN-0047	366682	3761226	4	Floodplain	Ballona, Marina Del Rey, Admiralty	January 14, 1961, UCLA archaeologists summoned to Marina del Rey boat harbor where human bones were disturbed by sewer trench excavation.			Bone, dog	Beta-085585	1350	60		1177	1265	1309	calib 8.10 IntCal20	Johnson, Keith L. 2016	32197
LAN	CA-LAN-0047	366682	3761226	4	Floodplain	Ballona, Marina Del Rey, Admiralty	CALAN47CAT997 Sample F			Bone, gelatin	NZA-29237	384	35		317	446	506	calib 8.10 IntCal20		33182
LAN	CA-LAN-0047	366682	3761226	4	Floodplain	Ballona, Marina Del Rey, Admiralty	CALAN47CAT997 Sample B			Bone, gelatin	NZA-29238	349	40		313	396	492	calib 8.10 IntCal20		33183
LAN	CA-LAN-0047	366682	3761226	4	Floodplain	Ballona, Marina Del Rey, Admiralty	January 14, 1961, UCLA archaeologists summoned to Marina del Rey boat harbor where human bones were disturbed by sewer trench excavation.			Shell-m, marine	TX-6971	850	70		4	237	431	calib 8.10 Marine20; 70±65	Johnson, Keith L. 2016	32195
LAN	CA-LAN-0047	366682	3761226	4	Floodplain	Ballona, Marina Del Rey, Admiralty	January 14, 1961, UCLA archaeologists summoned to Marina del Rey boat harbor where human bones were disturbed by sewer trench excavation.			Shell-m, marine	TX-6972	810	60		1	198	392	calib 8.10 Marine20; 70±65	Johnson, Keith L. 2016	32194
LAN	CA-LAN-0047	366682	3761226	4	Floodplain	Ballona, Marina Del Rey, Admiralty	January 14, 1961, UCLA archaeologists summoned to Marina del Rey boat harbor where human bones were disturbed by sewer trench excavation.			Shell-m, marine	TX-6973	790	70		1	183	384	calib 8.10 Marine20; 70±65	Johnson, Keith L. 2016	32192
LAN	CA-LAN-0047	366682	3761226	4	Floodplain	Ballona, Marina Del Rey, Admiralty	January 14, 1961, UCLA archaeologists summoned to Marina del Rey boat harbor where human bones were disturbed by sewer trench excavation.			Shell-m, marine	TX-6974	760	70		1	161	356	calib 8.10 Marine20; 70±65	Johnson, Keith L. 2016	32191
LAN	CA-LAN-0047	366682	3761226	4	Floodplain	Ballona, Marina Del Rey, Admiralty	January 14, 1961, UCLA archaeologists summoned to Marina del Rey boat harbor where human bones were disturbed by sewer trench excavation.			Shell-m, marine	TX-6975	790	70		1	183	384	calib 8.10 Marine20; 70±65	Johnson, Keith L. 2016	32193
LAN	CA-LAN-0047	366682	3761226	4	Floodplain	Ballona, Marina Del Rey, Admiralty	January 14, 1961, UCLA archaeologists summoned to Marina del Rey boat harbor where human bones were disturbed by sewer trench excavation.			Shell-m, marine	TX-6976	880	70		35	268	475	calib 8.10 Marine20; 70±65	Johnson, Keith L. 2016	32196
LAN	CA-LAN-0054	367982	3760868	4	Floodplain, marsh	Ballona	PD-198-97721			Shell-m, Venus clam	Beta-194872	4210	40	-0.3	3763	4016	4279	calib 8.10 Marine20; 70±65	Koerper, H. C. 2006	32899
LAN	CA-LAN-0054	367982	3760868	4	Floodplain, marsh	Ballona	PD-116-97723			Shell-m, Venus clam	Beta-194873	3120	100	-0.6	2332	2660	2968	calib 8.10 Marine20; 70±65	Koerper, H. C. 2006	32900
LAN	CA-LAN-0054	367982	3760868	4	Floodplain, marsh	Ballona	PD-71-97722			Shell-m, Venus clam	Beta-194874	4060	40	1	3569	3816	4070	calib 8.10 Marine20; 70±65	Koerper, H. C. 2006	32901
LAN	CA-LAN-0054	367982	3760868	4	Floodplain, marsh	Ballona	PD-39-97724			Shell-m, Venus clam	Beta-194875	3010	60	-0.4	2294	2536	2761	calib 8.10 Marine20; 70±65	Koerper, H. C. 2006	32902
LAN	CA-LAN-0054	367982	3760868	4	Floodplain, marsh	Ballona	CALAN542AA44			Shell-m, Venus clam	Beta-219076	2950	40	-1.6	2249	2469	2711	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32911
LAN	CA-LAN-0054	367982	3760868	4	Floodplain, marsh	Ballona	CALAN5422B7E			Shell-m, Oyster	Beta-219077	2790	40	-1	2000	2253	2499	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32912
LAN	CA-LAN-0054	367982	3760868	4	Floodplain, marsh	Ballona	CALAN5422B9F			Shell-m, Scallop	Beta-219078	2880	40	-0.9	2141	2381	2652	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32913
LAN	CA-LAN-0054	367982	3760868	4	Floodplain, marsh	Ballona	CALAN54231AB			Shell-m, Scallop	Beta-219079	2740	40	-1.8	1948	2195	2424	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32914
LAN	CA-LAN-0054	367982	3760868	4	Floodplain, marsh	Ballona	CALAN543CAAC			Shell-m, Venus clam	Beta-219080	3720	40	0.8	3163	3393	3625	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32915
LAN	CA-LAN-0054	367982	3760868	4	Floodplain, marsh	Ballona	CALAN543CAAE			Shell-m, Venus clam	Beta-219081	3020	40	-0.8	2326	2548	2747	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32916
LAN	CA-LAN-0054	367982	3760868	4	Floodplain, marsh	Ballona	CALAN543CAA1			Shell-m, Venus clam	Beta-219082	3100	70	-2.2	2347	2636	2879	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32917
LAN	CA-LAN-0054	367982	3760868	4	Floodplain, marsh	Ballona	CALAN543CA8F			Shell-m, Scallop	Beta-219083	2960	40	-2.4	2269	2481	2719	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32918
LAN	CA-LAN-0054	367982	3760868	4	Floodplain, marsh	Ballona	CALAN543CA9F			Shell-m, Pismo clam	Beta-219084	3070	40	0.5	2351	2603	2800	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32919
LAN	CA-LAN-0054	367982	3760868	4	Floodplain, marsh	Ballona	CALAN543CA95			Shell-m, Scallop	Beta-219085	3050	40	-0.1	2340	2580	2773	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32920
LAN	CA-LAN-0054	367982	3760868	4	Floodplain, marsh	Ballona	CALAN5429AED			Shell-m, Venus clam	Beta-224053	3100	40	-0.3	2385	2638	2850	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32996
LAN	CA-LAN-0054	367982	3760868	4	Floodplain, marsh	Ballona	CALAN5448FDF			Shell-m, Venus clam	Beta-224054	3840	40	0.8	3325	3538	3793	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32997
LAN	CA-LAN-0054	367982	3760868	4	Floodplain, marsh	Ballona	CALAN54231AC			Shell-m, Littleneck clam	Beta-224055	2770	40	-2.4	1987	2229	2474	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32998
LAN	CA-LAN-0054	367982	3760868	4	Floodplain, marsh	Ballona	CALAN54233CA			Shell-m, Venus clam	Beta-224056	3830	40	0.2	3308	3526	3778	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32999
LAN	CA-LAN-0054	367982	3760868	4	Floodplain, marsh	Ballona	CALAN5448FA1			Shell-m, Littleneck clam	Beta-224057	2790	40	-1.3	2000	2253	2499	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33000
LAN	CA-LAN-0054	367982	3760868	4	Floodplain, marsh	Ballona	CALAN542986E			Shell-m, Venus clam	Beta-224058	3880	50	0.6	3355	3587	3835	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33001

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County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN	CA-LAN-0059	370635	3760954	42	Terrace, coastal	Ballona	Unit 2: 100-110 cm	100	110	Shell-m, marine assumed	Beta-007739	1110	100		233	474	710	calib 8.10 Marine20; 70±65	Van Horn, D. M. 1984, Salls, R. 1988	7742
LAN	CA-LAN-0059	370635	3760954	42	Terrace, coastal	Ballona	Unit 23: 50-60 cm	50	60	Shell-m, marine assumed	Beta-009377	1100	90		237	466	681	calib 8.10 Marine20; 70±65	Van Horn, D. M. 1984, Salls, R. 1988	7743
LAN	CA-LAN-0059	370635	3760954	42	Terrace, coastal	Ballona	Unit 23: 100-110 cm	100	110	Shell-m, marine assumed	Beta-009378	620	80		5	75	145	calib 8.10 Marine20; 70±65	Van Horn, D. M. 1984, Salls, R. 1988	7744
LAN	CA-LAN-0060	423553	3719381	179	Terrace, coastal	Centinela Site	Test Pit 1, bottom of Stratum II	166	176	Shell-m, Chione	TX-7666	2060	60	0.37	1169	1387	1615	calib 8.10 Marine20; 70±65	Grenda, Donn R. 1994	33185
LAN	CA-LAN-0060	370851	3760985	14	Terrace, coastal	Centinela Site	Test Pit 1, top of Stratum II	56	66	Shell-m, Chione	TX-7667	2140	60	0.2	1264	1468	1702	calib 8.10 Marine20; 70±65	Grenda, Donn R. 1994	33186
LAN	CA-LAN-0061	368794	3759707	47	Hill, ridge	Ballona, Del Rey Hills	Locus B, Tr. B 6: 30-40 cm	30	40	Shell-m, marine assumed	Beta-011903	1550	60		657	864	1082	calib 8.10 Marine20; 70±65	Van Horn, D. M. 1985, Salls, R. 1988	7735
LAN	CA-LAN-0061	368794	3759707	47	Hill, ridge	Ballona, Del Rey Hills	Locus A, 34: 10-20 cm	10	20	Shell-m, marine assumed	Beta-012379	4310	80		3832	4150	4445	calib 8.10 Marine20; 70±65	Van Horn, D. M. 1985, Salls, R. 1988	7737
LAN	CA-LAN-0061	368794	3759707	47	Hill, ridge	Ballona, Del Rey Hills	Locus B, 32: 40-50 cm, Ft. 2	40	40	Shell-m, marine assumed	Beta-012380	1950	60		1056	1276	1504	calib 8.10 Marine20; 70±65	Van Horn, D. M. 1985, Salls, R. 1988	7734
LAN	CA-LAN-0061	368794	3759707	47	Hill, ridge	Ballona, Del Rey Hills	Locus A, 1: 30-40 cm, Ft. 1	30	40	Shell-m, marine assumed	Beta-012381	1000	60		148	380	555	calib 8.10 Marine20; 70±65	Van Horn, D. M. 1985, Salls, R. 1988	7741
LAN	CA-LAN-0061	368794	3759707	47	Hill, ridge	Ballona, Del Rey Hills	Locus A, Tr. H, 2: 3-6 cm	3	6	Shell-m, marine assumed	Beta-013018	1840	60		939	1163	1360	calib 8.10 Marine20; 70±65	Van Horn, D. M. 1985, Salls, R. 1988	7740
LAN	CA-LAN-0061	368794	3759707	47	Hill, ridge	Ballona, Del Rey Hills	Locus A, 43: 50-60 cm	50	60	Shell-m, marine assumed	Beta-013019	1960	60		1065	1287	1511	calib 8.10 Marine20; 70±65	Van Horn, D. M. 1985, Salls, R. 1988	7739
LAN	CA-LAN-0061	368794	3759707	47	Hill, ridge	Ballona, Del Rey Hills	Locus C, 2: 40-50 cm	40	50	Shell-m, marine assumed	Beta-013020	160	70		0	10	60	calib 8.10 Marine20; 70±65	Van Horn, D. M. 1985, Salls, R. 1988	7732
LAN	CA-LAN-0061	368794	3759707	47	Hill, ridge	Ballona, Del Rey Hills	Locus B, Tr. E, 1: 40-50 cm	40	50	Shell-m, marine assumed	Beta-013021	2900	70		2135	2408	2691	calib 8.10 Marine20; 70±65	Van Horn, D. M. 1985, Salls, R. 1988	7733
LAN	CA-LAN-0061	368794	3759707	47	Hill, ridge	Ballona, Del Rey Hills	Locus B, Tr. C, 2: 3-4 cm	3	4	Shell-m, marine assumed	Beta-013022	1080	80		238	449	659	calib 8.10 Marine20; 70±65	Van Horn, D. M. 1985, Salls, R. 1988	7736
LAN	CA-LAN-0061	368794	3759707	47	Hill, ridge	Ballona, Del Rey Hills	Locus A, Tr. G, 13-14: 40-50 cm	40	50	Shell-m, marine assumed	Beta-013023	2670	90		1790	2109	2409	calib 8.10 Marine20; 70±65	Van Horn, D. M. 1985, Salls, R. 1988	7738
LAN	CA-LAN-0061	368794	3759707	47	Hill, ridge	Ballona, Del Rey Hills	26: 20-30 cm	20	30	Shell-m, marine assumed	Beta-018301	2070	60		1178	1403	1627	calib 8.10 Marine20; 70±65	Van Horn, D. M. 1987, Freeman, T.A. 1991	7730
LAN	CA-LAN-0061	368794	3759707	47	Hill, ridge	Ballona, Del Rey Hills	26: 100-120 cm	100	120	Shell-m, marine assumed	Beta-018302	2100	70		1218	1434	1690	calib 8.10 Marine20; 70±65	Van Horn, D. M. 1987, Freeman, T.A. 1991	7728
LAN	CA-LAN-0061	368794	3759707	47	Hill, ridge	Ballona, Del Rey Hills	31: 190-200	190	200	Shell-m, marine assumed	Beta-018303	202	70		0	10	60	calib 8.10 Marine20; 70±65	Van Horn, D. M. 1987, Freeman, T.A. 1991	7731
LAN	CA-LAN-0061	368794	3759707	47	Hill, ridge	Ballona, Del Rey Hills	Tr. D, 8: 40-50 cm	40	50	Shell-m, marine assumed	Beta-019091	2530	90		1642	1936	2266	calib 8.10 Marine20; 70±65	Van Horn, D. M. 1987, Freeman, T.A. 1991	7727
LAN	CA-LAN-0061	368794	3759707	47	Hill, ridge	Ballona, Del Rey Hills	Tr. D 8: 80-90 cm	80	90	Shell-m, marine assumed	Beta-019092	2070	90		1155	1405	1689	calib 8.10 Marine20; 70±65	Van Horn, D. M. 1987, Freeman, T.A. 1991	7729
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	PD3678U26L65			Shell-m, Venus clam	Beta-188333	3100	60	-0.3	2358	2636	2864	calib 8.10 Marine20; 70±65	Koerper, H. C. 2006	32868
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	PD3842U26L69			Shell-m, Venus clam	Beta-188334	2690	50	-0.9	1877	2135	2355	calib 8.10 Marine20; 70±65	Koerper, H. C. 2006	32869
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	PD4309U26L75			Shell-m, Venus clam	Beta-188335	4270	70	1.1	3817	4096	4397	calib 8.10 Marine20; 70±65	Koerper, H. C. 2006	32870
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	PD4971U25L83			Shell-m, unidentified shell	Beta-188625	4250	100	1.1	3718	4070	4410	calib 8.10 Marine20; 70±65	Koerper, H. C. 2006	32871
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	P4277U320L48			Shell-m, Venus clam	Beta-188967	980	80	0.4	103	361	562	calib 8.10 Marine20; 70±65	Koerper, H. C. 2006	32872
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	P3467U26L57			Shell-m, Venus clam	Beta-188968	980	70	0.2	123	363	553	calib 8.10 Marine20; 70±65	Koerper, H. C. 2006	32873
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	P3183U233L52			Shell-m, Venus clam	Beta-188969	2160	80	0.2	1260	1497	1763	calib 8.10 Marine20; 70±65	Koerper, H. C. 2006	32874
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	15667-422-57			Shell-m, Scallop	Beta-193295	2980	50	-0.5	2283	2504	2735	calib 8.10 Marine20; 70±65	Koerper, H. C. 2006	32878
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	13978-115-65			Shell-m, Venus clam	Beta-193298	2900	70	-1.3	2135	2408	2691	calib 8.10 Marine20; 70±65	Koerper, H. C. 2006	32881
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	15380-115-77			Shell-m, Venus clam	Beta-193299	4360	60	0.6	3937	4215	4494	calib 8.10 Marine20; 70±65	Koerper, H. C. 2006	32882
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	15256-115-76			Shell-m, Venus clam	Beta-193300	6220	60	0.1	6169	6386	6632	calib 8.10 Marine20; 70±65	Koerper, H. C. 2006	32883
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	15382-333-77			Shell-m, Venus clam	Beta-193301	4230	110	1.2	3680	4043	4410	calib 8.10 Marine20; 70±65	Koerper, H. C. 2006	32884
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	13930-114-64			Shell-m, Venus clam	Beta-193302	3020	60	-0.7	2301	2547	2768	calib 8.10 Marine20; 70±65	Koerper, H. C. 2006	32885
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	14512-114-70			Shell-m, Venus clam	Beta-193303	4430	80	0.6	3981	4306	4617	calib 8.10 Marine20; 70±65	Koerper, H. C. 2006	32886
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	14346-344-68			Shell-m, Venus clam	Beta-193304	3660	80	-1.2	3020	3318	3608	calib 8.10 Marine20; 70±65	Koerper, H. C. 2006	32887
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	14277-115-67			Shell-m, Venus clam	Beta-193305	3030	70	0.4	2296	2556	2799	calib 8.10 Marine20; 70±65	Koerper, H. C. 2006	32888
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	4998-333-60			Shell-m, Venus clam	Beta-193306	2110	60	-0.1	1244	1443	1687	calib 8.10 Marine20; 70±65	Koerper, H. C. 2006	32889
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	4869-114-59			Shell-m, Venus clam	Beta-193307	2790	50	-0.2	1991	2254	2518	calib 8.10 Marine20; 70±65	Koerper, H. C. 2006	32890
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	4494-333-56			Shell-m, Venus clam	Beta-193308	860	60	-2.9	22	247	447	calib 8.10 Marine20; 70±65	Koerper, H. C. 2006	32891
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	15257-334-76			Shell-m, Venus clam	Beta-193309	4320	50	0.8	3894	4163	4416	calib 8.10 Marine20; 70±65	Koerper, H. C. 2006	32892
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	4511-114-56			Shell-m, Venus clam	Beta-193310	1200	80	0.3	322	554	750	calib 8.10 Marine20; 70±65	Koerper, H. C. 2006	32893
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	20744-ITEM11			Organic sediment	Beta-194254	3500	50	-24.3	3594	3770	3904	calib 8.10 IntCal20	Koerper, H. C. 2006	32894
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	20744-ITEM9			Organic sediment	Beta-194255	4440	60	-24.6	4871	5071	5287	calib 8.10 IntCal20	Koerper, H. C. 2006	32895
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	20335U321L92			Shell-m, Venus clam	Beta-194256	4740	40	-0.8	4447	4703	4934	calib 8.10 Marine20; 70±65	Koerper, H. C. 2006	32896
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	20381U321L94			Shell-m, Venus clam	Beta-194257	6340	40	1	6296	6512	6726	calib 8.10 Marine20; 70±65	Koerper, H. C. 2006	32897
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	20335U321L95			Shell-m, Venus clam	Beta-194258	2970	40	-0.8	2284	2493	2722	calib 8.10 Marine20; 70±65	Koerper, H. C. 2006	32898
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN6238472			Shell-m, Littleneck clam	Beta-219816	2470	40	-2.5	1627	1859	2095	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32921

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LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN623DA20			Shell-m, Scallop	Beta-219817	2910	40	-1.5	2179	2420	2676	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32922
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN623DA27			Shell-m, Venus clam	Beta-219818	4120	40	0.4	3640	3897	4146	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32923
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN623DA36			Shell-m, Littleneck clam	Beta-219819	3680	60	-4.6	3077	3344	3596	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32924
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN623DA50			Shell-m, Littleneck clam	Beta-219820	4590	60	-3.6	4255	4522	4801	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32925
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN623DA52			Shell-m, Scallop	Beta-219821	2980	50	-2.7	2283	2504	2735	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32926
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN623DA66			Shell-m, Scallop	Beta-219822	2840	40	0.6	2082	2323	2604	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32927
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN623DA76			Shell-m, Scallop	Beta-219823	3000	40	-2.1	2312	2527	2734	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32928
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN623DA84			Shell-m, Scallop	Beta-219824	2930	40	-0.4	2211	2445	2693	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32929
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN623DA1D			Shell-m, Venus clam	Beta-219825	2790	40	0.8	2000	2253	2499	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32930
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN623DA8E			Shell-m, Oyster	Beta-219826	1180	40	-1.6	352	539	691	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32931
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN623DA9E			Shell-m, Venus clam	Beta-219827	1010	40	-1.9	188	390	555	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32932
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN623DAFF			Shell-m, Venus clam	Beta-219828	2840	40	-1.5	2082	2323	2604	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32933
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN623DA4F			Shell-m, Oyster	Beta-219829	1110	50	-1.2	293	478	644	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32934
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN623DA5F			Shell-m, Scallop	Beta-219830	3300	40	-3.5	2690	2881	3126	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32935
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN623DA6F			Shell-m, Littleneck clam	Beta-219831	2060	40	-1.5	1193	1391	1595	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32936
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN623DA8F			Shell-m, Venus clam	Beta-219832	1120	40	0.2	306	487	644	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32937
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN623DB0C			Shell-m, Venus clam	Beta-219833	1050	40	-0.3	255	425	606	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32938
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN623DB04			Shell-m, Venus clam	Beta-219834	2960	40	0.3	2269	2481	2719	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32939
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN623DB07			Shell-m, Venus clam	Beta-219835	860	40	0.6	37	248	445	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32940
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN623DEC2			Shell-m, Venus clam	Beta-219836	950	40	-0.4	133	341	510	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32941
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN623DEC6			Shell-m, Venus clam	Beta-219837	2040	60	-0.5	1155	1372	1602	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32942
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN623DECB			Shell-m, Venus clam	Beta-219838	4290	50	0.9	3866	4123	4391	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32943
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN623DECF			Shell-m, Venus clam	Beta-219839	2980	70	-1.1	2235	2503	2751	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32944
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CA-LAN-62 21467			Shell-m, Venus clam	Beta-230290	1890	40	0.6	1000	1213	1397	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33008
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CA-LAN-62 14764			Shell-m, Pismo clam	Beta-230291	4670	40	1.2	4387	4623	4844	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33009
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CA-LAN-62 24439			Shell-m, Venus clam	Beta-230292	4410	40	1.5	4016	4281	4524	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33010
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CA-LAN-62 9269			Shell-m, unidentified shell	Beta-230295	880	40	0.5	58	270	464	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33013
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CA-LAN-62 7340			Shell-m, unidentified shell	Beta-230296	1050	40	0.5	255	425	606	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33014
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN6204BF33			Plant, Canary grass	Beta-230908	260	40	-25.8	1	308	454	calib 8.10 IntCal20	Statistical Research Inc. 2022	33015
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN624CF38			Shell-m, Venus clam	Beta-231969	3030	40	1.4	2331	2559	2754	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33020
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN624CEF4			Shell-m, Venus clam	Beta-231970	2200	40	-1.3	1324	1539	1747	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33021
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN6246BF3			Shell-m, Scallop	Beta-231971	910	40	0.3	90	302	487	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33022
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN624CF1D			Shell-m, Venus clam	Beta-231972	1790	40	-0.2	919	1115	1293	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33023
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN62479A2			Shell-m, Littleneck clam	Beta-231973	1980	40	-2.1	1111	1308	1515	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33024

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County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN624CEEF			Shell-m, Venus clam	Beta-231974	2230	50	-0.5	1349	1574	1802	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33033
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN624CF34			Shell-m, Littleneck clam	Beta-231975	4290	40	-2.3	3877	4123	4383	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33034
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN6236BBC			Shell-m, Venus clam	Beta-231976	4390	40	1.6	3997	4255	4502	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33035
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN6236BA4			Shell-m, Venus clam	Beta-231977	2920	40	1.8	2196	2433	2686	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33036
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN624CF15			Shell-m, Littleneck clam	Beta-231978	2710	50	-2.1	1902	2159	2391	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33037
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN624CF35			Shell-m, Venus clam	Beta-231979	930	40	0.8	113	323	500	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33038
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN624CF00			Shell-m, Scallop	Beta-231980	1970	40	0.4	1100	1297	1507	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33039
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN624CEFA			Shell-m, Venus clam	Beta-231981	4570	40	1.2	4250	4495	4771	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33040
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN624C9BA			Shell-m, Littleneck clam	Beta-234670	1590	40	-2.6	704	905	1111	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33041
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN624C9BD			Shell-m, Scallop	Beta-234671	1780	40	0.1	913	1105	1287	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33042
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN624C9DF			Shell-m, Scallop	Beta-234672	950	40	0.9	133	341	510	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33043
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN624CA1F			Shell-m, Oyster	Beta-234673	1060	40	0	264	433	611	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33044
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN6253448			Shell-m, Venus clam	Beta-234674	1200	40	0.3	383	555	718	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33045
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN625344E			Shell-m, Venus clam	Beta-234675	6450	60	0.3	6388	6634	6886	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33046
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN62534B5			Charcoal, Little barley	Beta-234676	440	40	-25.1	330	498	541	calib 8.10 IntCal20	Statistical Research Inc. 2022	33047
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN62534B7			Charcoal, Canary grass	Beta-234677	480	40		472	519	622	calib 8.10 IntCal20	Statistical Research Inc. 2022	33048
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN6254909			Shell-m, Venus clam	Beta-235978	780	40	0.1	1	171	346	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33057
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN62548FB			Shell-m, Venus clam	Beta-235979	2520	40	0.5	1689	1921	2156	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33058
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN625490C			Shell-m, Venus clam	Beta-235980	2620	40	-1.4	1822	2047	2293	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33059
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN6254903			Shell-m, Venus clam	Beta-235981	2600	40	0.1	1799	2022	2282	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33060
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN6254908			Shell-m, Venus clam	Beta-235982	1880	40	-2.3	992	1203	1385	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33061
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN6236E76			Shell-m, Pismo clam	Beta-235983	4380	40	0.1	3986	4242	4491	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33062
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN6254907			Shell-m, Venus clam	Beta-235989	2090	40	-0.8	1232	1421	1635	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33068
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN62A5AA			Shell-m, Olivella	Beta-238391	970	40	2.1	148	358	520	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33069
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN62AE10			Shell-m, Pismo clam	Beta-238392	2950	40	-0.1	2249	2469	2711	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33070
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN62B991			Shell-m, Olivella	Beta-238865	900	40	1.7	78	292	479	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33071
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN6295F9			Shell-m, Abalone	Beta-238866	870	40	1.4	48	259	456	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33072
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN6255F61			Shell-m, Olivella	Beta-238867	1090	40	1.4	286	460	627	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33073
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN621890C			Shell-m, Olivella	Beta-238868	930	40	1.8	113	323	500	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33074
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN62D08D			Shell-m, Olivella	Beta-238869	860	40	1.7	37	248	445	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33075
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CALAN62B200			Shell-m, Abalone	Beta-238870	1130	40	2.3	312	496	650	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33076
LAN	CA-LAN-0062	368498	3759562	8	Floodplain	Ballona, Peck	CA-LAN-62/PD/7472/item:7/3000-0300465E9			Bone, deer metatarsal	NZA-28135	1570	30		1386	1460	1525	calib 8.10 IntCal20		33181
LAN	CA-LAN-0063	368134	3759170	46	Terrace, coastal	Ballona	Feature 587			Shell-m, marine	Beta-195178	2140	40	0.5	1286	1471	1686	calib 8.10 Marine20; 70±65		33880
LAN	CA-LAN-0063	368134	3759170	46	Terrace, coastal	Ballona	Feature 11			Shell-m, marine	Beta-197364	2370	60	-1.1	1494	1739	1993	calib 8.10 Marine20; 70±65		33879
LAN	CA-LAN-0064	367847	3759272	50	Hill, ridge	Ballona, Bluff Site	Tr. E 19A30	30	30	Shell-m, marine assumed	Beta-019093	2300	90		1366	1656	1945	calib 8.10 Marine20; 70±65	Van Horn, D. M. 1987, Freeman, T.A. 1991	7726

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LAN	CA-LAN-0133	353997	3767706	10	Floodplain	Topanga Creek	Core 16, Strat. VIII, A horizon, mid-midden, buried by fill	457.2	457.2	Shell-m, Tegula	D-AMS 042839	729	19		1	128	276	calib 8.10 Marine20; 70±65	Meyer, Jack 2021	32222
LAN	CA-LAN-0133	353997	3767706	10	Floodplain	Topanga Creek	Core 16, Strat. VIII, A horizon, upper midden, buried by fill	411.48	411.48	Charcoal	D-AMS 043103	820	20		681	712	770	calib 8.10 IntCal20	Meyer, Jack 2021	32223
LAN	CA-LAN-0133	353997	3767706	10	Floodplain	Topanga Creek	Core 16, Strat. VIII, A horizon, mid-midden, buried by fill	457.2	457.2	Charcoal	D-AMS 043104	0	0					N/A - Modern	Meyer, Jack 2021	32225
LAN	CA-LAN-0133	353997	3767706	10	Floodplain	Topanga Creek	Core 18, Strat. VIII, A horizon, upper midden, buried by fill	609.6	609.6	Charcoal	D-AMS 043105	250	22		1	297	422	calib 8.10 IntCal20	Meyer, Jack 2021	32221
LAN	CA-LAN-0133	353997	3767706	10	Floodplain	Topanga Creek	Core 18, Strat. VIII, A horizon, upper midden, buried by fill	609.6	609.6	Shell-m, Mytilus	D-AMS 043106	845	22		31	231	424	calib 8.10 Marine20; 70±65	Meyer, Jack 2021	32224
LAN	CA-LAN-0138	371043	3741256	47	Dune, coastal	Malaga Cove, Palos Verdes	Level 2	884	945	Shell-m, marine shell	Beta-349125	1360	30	1.2	526	686	873	calib 8.10 Marine20; 70±65	Koerper, Henry C. n.d.	32200
LAN	CA-LAN-0138	371043	3741256	47	Dune, coastal	Malaga Cove, Palos Verdes	Level 2	884	945	Bone, collagen	Beta-353138	590	30	-15.2	539	604	648	calib 8.10 IntCal20	Koerper, Henry C. n.d.	32198
LAN	CA-LAN-0138	371043	3741256	47	Dune, coastal	Malaga Cove, Palos Verdes	Next to lowest horizon (Level 2) below 8 ft of dune sand	945	1005	Shell-m, Chione sp.	LJ-0003	6930	200	1.25	6678	7153	7573	calib 8.10 Marine20; 70±65	Hubbs, C. L. 1960, Rogers, S. L. 1965, Shumway, G. 1961, Bright, M. 1965	7718
LAN	CA-LAN-0138	371043	3741256	47	Dune, coastal	Malaga Cove, Palos Verdes	Unit 1: 30-61 cm below 8 feet of dune sand	273	304	Shell-m, marine	UCLA-0680	1170	100		281	528	752	calib 8.10 Marine20; 70±65	Berger, R. 1965, Ericson, J. E. 1972	7721
LAN	CA-LAN-0138	371043	3741256	47	Dune, coastal	Malaga Cove, Palos Verdes	Unit 1: 91-122 cm below 8 feet of dune sand	334	365	Shell-m, marine	UCLA-0681	1800	100		842	1122	1382	calib 8.10 Marine20; 70±65	Berger, R. 1965, Ericson, J. E. 1972	7720
LAN	CA-LAN-0138	371043	3741256	47	Dune, coastal	Malaga Cove, Palos Verdes	Near 2109 Rosita Place, Palos Verdes, disturbed area			Bone, collagen (1 of 2)	UCLA-1008A	215	80		1	205	445	calib 8.10 IntCal20	Berger, R. 1966, Ericson, J. E. 1972	7722
LAN	CA-LAN-0138	371043	3741256	47	Dune, coastal	Malaga Cove, Palos Verdes	Near 2109 Rosita Place, Palos Verdes, same as UCLA-1008A			Bone, collagen (1 of 2)	UCLA-1008B	1886	160	-19	1412	1812	2297	calib 8.10 IntCal20	Berger, R. 1966, Ericson, J. E. 1972	7719
LAN	CA-LAN-0138	371043	3741256	47	Dune, coastal	Malaga Cove, Palos Verdes	Likely from Level 1 or Level 2 below 8 ft of dune sand	945	1096	Shell-m, bivalve	UCR-1196	7550	240	1.25	7290	7770	8294	calib 8.10 Marine20; 70±65	UCR 1986	7717
LAN	CA-LAN-0138	371043	3741256	47	Dune, coastal	Malaga Cove, Palos Verdes	Level 1	945	1036	Shell-m, marine shell	UCR-2372	7140	120	-0.56	7072	7373	7657	calib 8.10 Marine20; 70±65	Koerper, Henry C. n.d.	32202
LAN	CA-LAN-0138	371043	3741256	47	Dune, coastal	Malaga Cove, Palos Verdes	Level 1	945	1036	Shell-m, marine shell	UCR-2384A	6080	55	0.05	5990	6236	6458	calib 8.10 Marine20; 70±65	Koerper, Henry C. n.d.	32201
LAN	CA-LAN-0138	371043	3741256	47	Dune, coastal	Malaga Cove, Palos Verdes	Level 4	243	701	Shell-m, marine shell	UCR-2384D	870	40	1.25	48	259	456	calib 8.10 Marine20; 70±65	Koerper, Henry C. n.d.	32199
LAN	CA-LAN-0159	374798	3770043	53	Tar seep	La Brea skeleton	Pit 10	200	270	Bone, human collagen	UCIAMS-127072	9075	30	-20	10189	10231	10255	calib 8.10 IntCal20		33665
LAN	CA-LAN-0159	374798	3770043	53	Tar seep	La Brea skeleton	Pit 10	200	270	Bone, human collagen	UCIAMS-127072-86	9080	15	-20	10208	10235	10247	calib 8.10 IntCal20		33666
LAN	CA-LAN-0159	374798	3770043	53	Tar seep	La Brea skeleton	Pit 10	200	270	Bone, human collagen	UCIAMS-127086	9085	35	-20	10187	10236	10333	calib 8.10 IntCal20		33667
LAN	CA-LAN-0159	374798	3770043	53	Tar seep	La Brea skeleton	Pit 10			Bone, human collagen	UCLA-1292BB	9080	80		9921	10246	10497	calib 8.10 IntCal20	Berger, R. 1971	15473
LAN	CA-LAN-0159	374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 67			Wood, atlatl foreshaft	LJ-0121	4450	200		4536	5088	5583	calib 8.10 IntCal20	Hubbs, C. L. 1960, Ericson, J. E. 1972, Bright, M. 1965	7716
LAN	CA-LAN-0167	374093	3793296	331		Big Tujunga	91-96 cm	91	96	Charcoal	UCLA-0926	1515	80		1288	1406	1545	calib 8.10 IntCal20	Berger, R. 1966, Ericson, J. E. 1972	7697
LAN	CA-LAN-0171	376161	3765205	33	Floodplain	Angeles Mesa, Haverty	Haverty skeleton #4	579	700	Bone, human	GX-01140	5200	400		4960	5954	6876	calib 8.10 IntCal20	Brooks 1990	2449
LAN	CA-LAN-0171	376161	3765205	33	Floodplain	Angeles Mesa, Haverty	Haverty skeleton #4	579	700	Bone, human gelatin	HA-0104A	5250	90		5759	6044	6277	calib 8.10 IntCal20	Brooks 1990	7688
LAN	CA-LAN-0171	376161	3765205	33	Floodplain	Angeles Mesa, Haverty	Angeles Mesa, femur 3 (+/-200 yr lab error used to calibrate)	579	700	Bone, human collagen	UCLA-1924	10500	2000		11651	12329	12823	calib 8.10 IntCal20	Berger, R. 1989	7683
LAN	CA-LAN-0171	376161	3765205	33	Floodplain	Angeles Mesa, Haverty	Haverty skeleton #4	579	700	Bone, human	UCLA-1924A	7900	1440		6661	8928	11392	calib 8.10 IntCal20	Brooks 1990, Taylor, R. E. 1983	7684
LAN	CA-LAN-0171	376161	3765205	33	Floodplain	Angeles Mesa, Haverty	Haverty skeleton #4	579	700	Bone, acid sol. frac.	UCR-1349A	5680	180		6008	6490	6898	calib 8.10 IntCal20	Brooks 1990	7685
LAN	CA-LAN-0171	376161	3765205	33	Floodplain	Angeles Mesa, Haverty	Haverty skeleton #4	579	700	Bone, human collagen	UCR-1349D	5280	180		5607	6055	6399	calib 8.10 IntCal20	Brooks 1990	7687
LAN	CA-LAN-0171	376161	3765205	33	Floodplain	Angeles Mesa, Haverty	Haverty skeleton #4	579	700	Bone, human organic fraction	UCR-1568A	4050	100		4256	4556	4833	calib 8.10 IntCal20	Brooks 1990	7694
LAN	CA-LAN-0171	376161	3765205	33	Floodplain	Angeles Mesa, Haverty	Haverty skeleton #4	579	700	Bone, human	UCR-1568B	4420	350		4095	5020	5895	calib 8.10 IntCal20	Brooks 1990	7693
LAN	CA-LAN-0171	376161	3765205	33	Floodplain	Angeles Mesa, Haverty	Haverty skeleton #1	579	700	Bone, human gelatin	UCR-3082	5260	520		4828	6011	7254	calib 8.10 IntCal20	Brooks 1990	7689
LAN	CA-LAN-0171	376161	3765205	33	Floodplain	Angeles Mesa, Haverty	Haverty skeleton #1	579	700	Bone, human osteocalcin	UCR-3083	5540	230		5755	6334	6882	calib 8.10 IntCal20	Brooks 1990	7686
LAN	CA-LAN-0171	376161	3765205	33	Floodplain	Angeles Mesa, Haverty	Haverty skeleton #2	579	700	Bone, human gelatin	UCR-3084	2730	190		2357	2859	3332	calib 8.10 IntCal20	Brooks 1990	7696
LAN	CA-LAN-0171	376161	3765205	33	Floodplain	Angeles Mesa, Haverty	Haverty skeleton #4	579	700	Bone, human gelatin	UCR-3086	3870	350		3448	4294	5287	calib 8.10 IntCal20	Brooks 1990	7695

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County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN	CA-LAN-0171	376161	3765205	33	Floodplain	Angeles Mesa, Haverly	Haverly skeleton #2	579	700	Bone, human osteocalcin	UCR-3087	4630	260		4585	5288	5910	calib 8.10 IntCal20	Brooks 1990	7692
LAN	CA-LAN-0171	376161	3765205	33	Floodplain	Angeles Mesa, Haverly	Haverly skeleton #5	579	700	Bone, human gelatin	UCR-3089	4710	190		4873	5399	5885	calib 8.10 IntCal20	Brooks 1990	7691
LAN	CA-LAN-0172	373240	3765350	30	Fan	Leimert Park, L.A. Man	Los Angeles Man			Bone, human amino acid		3560	220		3357	3874	4513	calib 8.10 IntCal20	Bada, J. L. 1985	7677
LAN	CA-LAN-0193	369950	3760405	8	Floodplain	Ballona	PD196/IF239, bucket auger 539			Shell-m, unidentified shell	Beta-129439	2270	90	0.6	1342	1622	1911	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32785
LAN	CA-LAN-0193	369950	3760405	8	Floodplain	Ballona	PD197/IF82, bucket auger 539			Shell-m, unidentified shell	Beta-129440	2170	40	1.3	1301	1504	1709	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32786
LAN	CA-LAN-0193	369950	3760405	8	Floodplain	Ballona	CALA1934109A			Shell-m, Abalone	Beta-221554	4300	40	-0.3	3889	4137	4391	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32987
LAN	CA-LAN-0193	369950	3760405	8	Floodplain	Ballona	CALA193410B9			Shell-m, Pismo clam	Beta-221555	2490	40	0.5	1654	1884	2122	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32988
LAN	CA-LAN-0193	369950	3760405	8	Floodplain	Ballona	CALA193410BB			Shell-m, Venus clam	Beta-221556	2010	40	-1.8	1140	1339	1539	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32989
LAN	CA-LAN-0193	369950	3760405	8	Floodplain	Ballona	CALA193410AE			Shell-m, Pismo clam	Beta-221557	2510	40	-0.7	1683	1909	2147	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32990
LAN	CA-LAN-0193	369950	3760405	8	Floodplain	Ballona	CALA1931308D			Shell-m, Venus clam	Beta-222330	2020	40	-1.6	1151	1350	1550	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32991
LAN	CA-LAN-0193	369950	3760405	8	Floodplain	Ballona	CALA193130B6			Shell-m, Venus clam	Beta-222331	2050	40	-1.5	1179	1381	1580	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32992
LAN	CA-LAN-0193	369950	3760405	8	Floodplain	Ballona	CALA193132E0			Shell-m, Venus clam	Beta-222332	2030	40	-1.6	1164	1360	1563	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32993
LAN	CA-LAN-0193	369950	3760405	8	Floodplain	Ballona	CALA19314AF2			Shell-m, Venus clam	Beta-222333	2490	40	-3.7	1654	1884	2122	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32994
LAN	CA-LAN-0193	369950	3760405	8	Floodplain	Ballona	CALA193410A6			Shell-m, Venus clam	Beta-222334	2040	40	-1.1	1173	1370	1571	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32995
LAN	CA-LAN-0193	369950	3760405	8	Floodplain	Ballona	CA-LAN-193 293			Shell-m, Oyster	Beta-230285	2500	40	0.4	1673	1896	2139	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33003
LAN	CA-LAN-0193	369950	3760405	8	Floodplain	Ballona	CALAN1933284			Shell-m, Frog snail	Beta-235879	2530	40	-0.6	1697	1934	2167	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33051
LAN	CA-LAN-0193	369950	3760405	8	Floodplain	Ballona	CALAN19300C			Shell-m, Venus clam	Beta-235880	2980	40	-0.7	2294	2504	2724	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33052
LAN	CA-LAN-0193	369950	3760405	8	Floodplain	Ballona	CALAN19330EE			Shell-m, Venus clam	Beta-235881	2850	40	-5.1	2094	2338	2613	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33053
LAN	CA-LAN-0193	369950	3760405	8	Floodplain	Ballona	CALAN1932FC1			Shell-m, Moon snail	Beta-235882	3970	40	0.9	3456	3700	3938	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33054
LAN	CA-LAN-0193	369950	3760405	8	Floodplain	Ballona	CALAN193P>549ITEM2			Bone, Deer femur	NZA-29330	2234	40		2128	2229	2341	calib 8.10 IntCal20	Statistical Research Inc. 2022	33184
LAN	CA-LAN-0206	367824	3759120	46	Terrace, coastal	Playa Del Ray, Berger Place	1: 50-60 cm, lowest Component C with clogged stones; site southwest of Berger Place and 80th St. in Playa Del Ray, CA	50	60	Shell-m, marine assumed	Beta-008102	6750	80		6707	6978	7244	calib 8.10 Marine20; 70±65	DiGregorio, L.A., Freeman, T.A. 1991, Salls, R. 1988	7671
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	Unit 6, Level 6	850	860	Shell-m, Venus clam	Beta-145027	2030	60		1142	1361	1589	calib 8.10 Marine20; 70±65	Altchul 2009	27678
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	Unit 10, Level 7	750	760	Shell-m, Venus clam	Beta-145028	1640	40		752	960	1168	calib 8.10 Marine20; 70±65	Altchul 2009	27679
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	Unit 9, Level 1	310	320	Shell-m, Haliotis	Beta-145029a	910	70		60	299	499	calib 8.10 Marine20; 70±65	Altchul 2009	27680
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	Unit 9, Level 2	310	300	Shell-m, Venus clam	Beta-145030	1030	70		187	405	616	calib 8.10 Marine20; 70±65	Altchul 2009	27681
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CA-LAN-211 3CB62			Shell-m, Littleneck clam	Beta-220599	3030	40	-1.5	2331	2559	2754	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32945
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CA-LAN-211 38AE8			Shell-m, Littleneck clam	Beta-220600	2710	40	-3.4	1911	2160	2371	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32946
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CA-LAN-211 38AF0			Shell-m, Venus clam	Beta-220601	2020	40	0.5	1151	1350	1550	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32947
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CA-LAN-211 38CBC			Shell-m, Littleneck clam	Beta-220602	760	40	-1.2	1	155	319	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32948
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CA-LAN-211 38C7C			Shell-m, Venus clam	Beta-220603	2970	40	-1.6	2284	2493	2722	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32949
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CA-LAN-211 38CDB			Shell-m, Scallop	Beta-220604	700	40	-4	1	113	267	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32950
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CA-LAN-211 38DA8			Shell-m, Venus clam	Beta-220605	2900	40	-0.6	2166	2408	2667	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32951
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CA-LAN-211 38DD0			Shell-m, Littleneck clam	Beta-220606	2010	40	0	1140	1339	1539	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32952
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CA-LAN-211 385EA			Shell-m, Littleneck clam	Beta-220607	820	40	2.2	1	206	388	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32953
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CA-LAN-211 386C4			Shell-m, Venus clam	Beta-220608	740	40	0.2	1	139	297	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32954

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LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CA-LAN-211 38704			Shell-m, Abalone	Beta-220609	1020	40	0.9	198	399	564	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32955
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CA-LAN-211 38732			Shell-m, Scallop	Beta-220610	700	40	-1.4	1	113	267	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32956
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CA-LAN-211 38757			Shell-m, Scallop	Beta-220611	3000	40	-0.4	2312	2527	2734	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32957
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CA-LAN-211 388EE			Shell-m, Littleneck clam	Beta-220612	2160	40	0.8	1296	1493	1700	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32958
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CA-LAN-211 401EA			Shell-m, Venus clam	Beta-220613	2000	40	-0.1	1130	1329	1529	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32959
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CA-LAN-211 401E1			Shell-m, Littleneck clam	Beta-220614	2250	40	-0.4	1376	1596	1816	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32960
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CA-LAN-211 4020E			Shell-m, Venus clam	Beta-220615	2120	40	-0.4	1272	1451	1674	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32961
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CA-LAN-211 4021D			Shell-m, Venus clam	Beta-220616	1960	40	-2.4	1086	1286	1494	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32962
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CA-LAN-211 4022B			Shell-m, Venus clam	Beta-220617	2000	40	0.2	1130	1329	1529	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32963
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CA-LAN-211 4023E			Shell-m, Venus clam	Beta-220618	2060	40	-1.4	1193	1391	1595	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32964
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CA-LAN-211 4027E			Shell-m, Venus clam	Beta-220619	710	40	-0.3	1	119	273	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32965
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CA-LAN-211 40201			Shell-m, Venus clam	Beta-220620	1960	40	-0.6	1086	1286	1494	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32966
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CA-LAN-211 40223			Shell-m, Venus clam	Beta-220621	3020	40	0.6	2326	2548	2747	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32967
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CA-LAN-211 40234			Shell-m, Scallop	Beta-220622	930	40	0.5	113	323	500	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32968
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CA-LAN-211 40246			Shell-m, Venus clam	Beta-220623	2940	40	-1.3	2231	2457	2703	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32969
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CA-LAN-211 40251			Shell-m, Scallop	Beta-220624	810	40	0.1	1	196	379	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32970
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CA-LAN-211 40254			Shell-m, Venus clam	Beta-220625	2970	40	-2.3	2284	2493	2722	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32971
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CA-LAN-211 40272			Shell-m, Scallop	Beta-220626	2920	40	-0.3	2196	2433	2686	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32972
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CA-LAN-211 40276			Shell-m, Scallop	Beta-220627	660	40	-1	49	89	129	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32973
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CA-LAN-211 40298			Shell-m, Venus clam	Beta-220628	800	60	-0.1	1	190	384	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32974
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CA-LAN-211 5716			Shell-m, Scallop	Beta-230286	660	40	-0.7	0	85	175	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33004
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CA-LAN-211 2372			Shell-m, Littleneck clam	Beta-230287	2230	40	0.1	1356	1573	1791	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33005
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CA-LAN-211 4211			Shell-m, Littleneck clam	Beta-230288	2120	40	0.1	1272	1451	1674	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33006
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CALAN2114BF32			Plant, Canary grass	Beta-230909	360	40	-23.4	314	405	496	calib 8.10 IntCal20	Statistical Research Inc. 2022	33016
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CALAN211365E			Charred material	Beta-234729	280	40		1	370	467	calib 8.10 IntCal20	Statistical Research Inc. 2022	33049
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CALAN2113662			Charred material	Beta-234730	80	40	-22.4				N/A - too young to calibrate	Statistical Research Inc. 2022	33050
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CALAN21148E6			Shell-m, Scallop	Beta-235984	890	40	0	68	281	471	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33063
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CALAN211EF29			Shell-m, Venus clam	Beta-235985	2980	40	-0.4	2294	2504	2724	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33064
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CALAN211ED80			Shell-m, Venus clam	Beta-235986	910	40	-0.6	90	302	487	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33065
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CALAN2114916			Shell-m, Scallop	Beta-235987	900	40	-1	78	292	479	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33066
LAN	CA-LAN-0211/H	368734	3759901	4	Fan, floodplain	Ballona	CALAN211ECC0			Shell-m, Littleneck clam	Beta-235988	660	40	-2.7	49	89	129	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33067
LAN	CA-LAN-0215	354445	3767843	62	Terrace, coastal	Parker Mesa	Shell from bottom level (18 to 24 in.) of analysis pit, associated with numerous artifacts at Parker Mesa (34° 2' N Lat, 118° 35' W Long). Collected by C. D. King; submitted by C. W. Meighan	46	61	Shell-m, Mytilus californianus	UCLA-0275	3000	100		2189	2522	2818	calib 8.10 Marine20; 70±65	Fergusson, G. J. 1964, Johnson, D. E. 1977, Bright, M. 1965	7669

Appendix D-2: Archaeological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN	CA-LAN-0235	396228	3738758	10	Terrace, coastal	CSULB	Unit 6/40-60	40	60	Shell-m, Aequipecten aequisulcatus	Beta-076720	2460	60	0.5	1594	1848	2108	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32151
LAN	CA-LAN-0235	396228	3738758	10	Terrace, coastal	CSULB	Unit 6/80-90	80	90	Shell-m, Aequipecten aequisulcatus	Beta-076721	3780	80	1.1	3180	3468	3765	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32153
LAN	CA-LAN-0235	396228	3738758	10	Terrace, coastal	CSULB	Unit 6/60-80	60	80	Shell-m, Chione undatella	Beta-076722	3910	70	-0.3	3360	3625	3900	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32154
LAN	CA-LAN-0235	396228	3738758	10	Terrace, coastal	CSULB	Unit 6/40-60	40	60	Shell-m, Laevicardium	Beta-076723	2510	90	0.5	1607	1911	2235	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32152
LAN	CA-LAN-0254	348165	3787949	299	Hill, ridge	Dayton Canyon	Trench 2, Feature 11, Roasting pit	50	80	Charcoal	Beta-175677	3760	40	-26	3984	4123	4241	calib 8.10 IntCal20	Sikes, Nancy E. 2008	32847
LAN	CA-LAN-0254	348165	3787949	299	Hill, ridge	Dayton Canyon	Trench 6, Feature 12, Roasting pit	60	90	Charcoal	Beta-175678	4130	60	-25	4448	4667	4832	calib 8.10 IntCal20	Sikes, Nancy E. 2008	32848
LAN	CA-LAN-0254	348165	3787949	299	Hill, ridge	Dayton Canyon	Unit 63, Feature 13, Roasting pit	40	50	Charcoal	Beta-175679	2920	70	-25	2871	3069	3323	calib 8.10 IntCal20	Sikes, Nancy E. 2008	32849
LAN	CA-LAN-0254	348165	3787949	299	Hill, ridge	Dayton Canyon	Feature 102, Roasting pit	2	30	Charcoal	Beta-178069	2800	40	-25.2	2782	2903	2998	calib 8.10 IntCal20	Sikes, Nancy E. 2008	32855
LAN	CA-LAN-0254	348165	3787949	299	Hill, ridge	Dayton Canyon	Feature 108, Roasting pit	1	30	Charcoal	Beta-178070	2720	50	-24.2	2750	2821	2932	calib 8.10 IntCal20	Sikes, Nancy E. 2008	32856
LAN	CA-LAN-0254	348165	3787949	299	Hill, ridge	Dayton Canyon	Unit 42, Feature 17, Roasting pit	60	90	Charcoal	Beta-178264	3460	60	-23.9	3567	3724	3881	calib 8.10 IntCal20	Sikes, Nancy E. 2008	32859
LAN	CA-LAN-0254	348165	3787949	299	Hill, ridge	Dayton Canyon	Feature 117, Large roasting pit, dug into bedrock	53	53	Charcoal	Beta-178265	4140	60	-23.5	4452	4677	4834	calib 8.10 IntCal20	Sikes, Nancy E. 2008	32860
LAN	CA-LAN-0254	348165	3787949	299	Hill, ridge	Dayton Canyon	Feature 34, inhumation	0	25	Bone, human femur	Beta-179695	2830	40	-18.6	2805	2936	3069	calib 8.10 IntCal20	Sikes, Nancy E. 2008	32861
LAN	CA-LAN-0254	348165	3787949	299	Hill, ridge	Dayton Canyon	Feature 70, inhumation	0	13	Bone, human radius	Beta-179696	4530	40	-21.8	5047	5162	5315	calib 8.10 IntCal20	Sikes, Nancy E. 2008	32862
LAN	CA-LAN-0254	348165	3787949	299	Hill, ridge	Dayton Canyon	Feature 71, inhumation	0	13	Bone, human femur	Beta-179697	2540	40	-19	2492	2619	2751	calib 8.10 IntCal20	Sikes, Nancy E. 2008	32863
LAN	CA-LAN-0254	348165	3787949	299	Hill, ridge	Dayton Canyon	Feature 99, inhumation	13	22	Bone, human long bone	Beta-179698	2380	40	-20.5	2336	2416	2691	calib 8.10 IntCal20	Sikes, Nancy E. 2008	32864
LAN	CA-LAN-0254	348165	3787949	299	Hill, ridge	Dayton Canyon	Feature 96, inhumation	2	25	Bone, human arm	Beta-179939	2630	40	-19.3	2716	2753	2848	calib 8.10 IntCal20	Sikes, Nancy E. 2008	32865
LAN	CA-LAN-0254	348165	3787949	299	Hill, ridge	Dayton Canyon	Feature 124, inhumation	21	28	Bone, human humerus	Beta-179941	2750	40	-18.7	2761	2838	2938	calib 8.10 IntCal20	Sikes, Nancy E. 2008	32866
LAN	CA-LAN-0254	348165	3787949	299	Hill, ridge	Dayton Canyon	Feature 137, inhumation	2	13	Bone, human femur	Beta-179942	1790	40	-22.5	1570	1665	1819	calib 8.10 IntCal20	Sikes, Nancy E. 2008	32867
LAN	CA-LAN-0254	348165	3787949	299	Hill, ridge	Dayton Canyon	Feature 131, inhumation younger than charcoal date	12	26	Bone, human femur	CAMS-111244	2775	40	-25	2774	2870	2961	calib 8.10 IntCal20	Sikes, Nancy E. 2008	33135
LAN	CA-LAN-0254	348165	3787949	299	Hill, ridge	Dayton Canyon	Feature 73, Burned rock	4	12	Charcoal	CAMS-111759	3650	40	-25	3849	3972	4089	calib 8.10 IntCal20	Sikes, Nancy E. 2008	33136
LAN	CA-LAN-0254	348165	3787949	299	Hill, ridge	Dayton Canyon	Feature 113, inhumation	8	20	Charcoal	CAMS-111760	3670	40	-25	3887	4004	4145	calib 8.10 IntCal20	Sikes, Nancy E. 2008	33137
LAN	CA-LAN-0254	348165	3787949	299	Hill, ridge	Dayton Canyon	Feature 131, associated with feature but older	12	26	Charcoal	CAMS-111761	4385	40	-25	4851	4949	5259	calib 8.10 IntCal20	Sikes, Nancy E. 2008	33138
LAN	CA-LAN-0254	348165	3787949	299	Hill, ridge	Dayton Canyon	Feature 142, inhumation	6	35	Charcoal	CAMS-111762	3000	40	-25	3062	3188	3342	calib 8.10 IntCal20	Sikes, Nancy E. 2008	33139
LAN	CA-LAN-0270	395970	3740622	7	Floodplain	Bouton Creek	Unit H3/0-3"	0	7	Shell-m, Aequipecten aequisulcatus	Beta-073646	1400	70	0.3	526	727	931	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32155
LAN	CA-LAN-0270	395970	3740622	7	Floodplain	Bouton Creek	Unit D5/18"-27"	46	68	Shell-m, Haliotis	Beta-073647	1500	70	2.2	617	818	1052	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32156
LAN	CA-LAN-0270	395970	3740622	7	Floodplain	Bouton Creek		80	90	Shell-m, Aequipecten aequisulcatus		3780	80		3180	3468	3765	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32157
LAN	CA-LAN-0274	396845	3737567	18	Terrace, coastal		1: 0-30 cm (+/-50 yr lab error used to calibrate)	0	30	Shell-m, Aequipecten c.	UCR-0839	150	50		0	10	40	calib 8.10 Marine20; 70±65	UCR 1986	7648
LAN	CA-LAN-0291	378668	3732418	132	Terrace, coastal		13: 50-60 cm	50	60	Shell-m, marine	Beta-022473	4060	70		3525	3816	4111	calib 8.10 Marine20; 70±65	Scholz, Personal Communication	7642
LAN	CA-LAN-0291	378668	3732418	132	Terrace, coastal		13: 80-90 cm	80	90	Shell-m, marine	Beta-022474	3830	100		3211	3530	3860	calib 8.10 Marine20; 70±65	Scholz, Personal Communication	7643
LAN	CA-LAN-0291	378668	3732418	132	Terrace, coastal		13: 100-110 cm	100	110	Shell-m, marine	Beta-022475	3280	90		2561	2864	3181	calib 8.10 Marine20; 70±65	Scholz, Personal Communication	7646
LAN	CA-LAN-0291	378668	3732418	132	Terrace, coastal		22: 30-40 cm	30	40	Shell-m, marine	Beta-022476	3430	70		2774	3038	3309	calib 8.10 Marine20; 70±65	Scholz, Personal Communication	7645
LAN	CA-LAN-0291	378668	3732418	132	Terrace, coastal		22: 60-70 cm	60	70	Shell-m, marine	Beta-022477	2430	80		1532	1812	2099	calib 8.10 Marine20; 70±65	Scholz, Personal Communication	7647
LAN	CA-LAN-0291	378668	3732418	132	Terrace, coastal		22: 90-100 cm	90	100	Shell-m, marine	Beta-022478	3600	80		2945	3245	3524	calib 8.10 Marine20; 70±65	Scholz, Personal Communication	7644
LAN	CA-LAN-0629	362838	3796526	354	Floodplain	Van Norman Reservoir	Burial 1 at Site No. 6, located in south wall of machine-cut trench in 1972, ribs from adult male. Subm by C. King.	157	157	Bone, human	UCLA-1885	600	50		529	600	657	calib 8.10 IntCal20	King, C. D. 1981	7631
LAN	CA-LAN-0702	396403	3737082	4	Floodplain	Sims Pond	Unit 5, level 9	90	100	Shell-m, Chione californiensis	Beta-001439	2855	70		2563	2841	3141	calib 8.10 Marine20; 70±65	Schroth, A. 1983, Allen, Lawrence P. 1980	7624
LAN	CA-LAN-0702	396403	3737082	4	Floodplain	Sims Pond	Unit 5, level 4	40	50	Shell-m, Chione fluctifraga	Beta-001440	2300	55		1878	2155	2410	calib 8.10 Marine20; 70±65	Schroth, A. 1983, Allen, Lawrence P. 1980	7627
LAN	CA-LAN-0702	396403	3737082	4	Floodplain	Sims Pond	Unit 9, level 3	30	40	Shell-m, Chione fluctifraga	Beta-001441	2730	85		2352	2683	2969	calib 8.10 Marine20; 70±65	Schroth, A. 1983, Allen, Lawrence P. 1980	7625
LAN	CA-LAN-0702	396403	3737082	4	Floodplain	Sims Pond	Unit 11, level 3	30	40	Shell-m, Chione californiensis	Beta-001442	2400	60		1995	2278	2586	calib 8.10 Marine20; 70±65	Schroth, A. 1983, Allen, Lawrence P. 1980	7626
LAN	CA-LAN-0702	396403	3737082	4	Floodplain	Sims Pond	Unit 3, level 3	30	40	Shell-m, Chione undatella	UCR-0323	1430	160		769	1158	1539	calib 8.10 Marine20; 70±65	UCR 1981	15467
LAN	CA-LAN-0702	396403	3737082	4	Floodplain	Sims Pond	Unit 3, level 7	70	80	Shell-m, Chione undatella	UCR-0324	3030	190		2538	3051	3558	calib 8.10 Marine20; 70±65	UCR 1986	7623
LAN	CA-LAN-0702	396403	3737082	4	Floodplain	Sims Pond	Unit 2, level 3	30	40	Shell-m, Chione undatella	UCR-0325	770	140		1	192	436	calib 8.10 Marine20; 70±65	UCR 1986	7629
LAN	CA-LAN-0705	396319	3739267	4	Floodplain	CSULB	Unit 4, 80-90	80	90	Shell-m, composite sample	Beta-063131	1030	60	1	202	406	608	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32068

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County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN	CA-LAN-0705	396319	3739267	4	Floodplain	CSULB	Unit 5, 60-70	60	70	Shell-m, composite sample	Beta-063132	1120	60	-0.2	292	486	656	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32074
LAN	CA-LAN-0705	396319	3739267	4	Floodplain	CSULB	Unit 6, 70-80	70	80	Shell-m, composite sample	Beta-063133	1130	60	-0.1	298	495	662	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32076
LAN	CA-LAN-0705	396319	3739267	4	Floodplain	CSULB	Unit 6, 130-140	130	140	Shell-m, composite sample	Beta-063134	1050	70	-0.4	217	423	633	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32069
LAN	CA-LAN-0705	396319	3739267	4	Floodplain	CSULB	Unit 7, 120-130	120	130	Shell-m, composite sample	Beta-063135	1100	70	-0.1	269	467	655	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32072
LAN	CA-LAN-0705	396319	3739267	4	Floodplain	CSULB	Unit 8, 130-140	130	140	Shell-m, composite sample	Beta-063136	1130	70	-0.8	287	495	671	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32075
LAN	CA-LAN-0705	396319	3739267	4	Floodplain	CSULB	Unit 9, 100-110	100	110	Shell-m, composite sample	Beta-063137	1400	70	-0.4	526	727	931	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32081
LAN	CA-LAN-0705	396319	3739267	4	Floodplain	CSULB	Unit 11, 80-90	80	90	Shell-m, composite sample	Beta-063138	1090	70	0.2	261	458	650	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32071
LAN	CA-LAN-0705	396319	3739267	4	Floodplain	CSULB	Unit 1, 130-140	130	140	Shell-m, composite sample	Beta-063139	1180	70	0.4	320	538	717	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32078
LAN	CA-LAN-0705	396319	3739267	4	Floodplain	CSULB	Unit 1, 70-80	70	80	Shell-m, composite sample	Beta-063140	1320	70	0.1	476	653	878	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32080
LAN	CA-LAN-0705	396319	3739267	4	Floodplain	CSULB	Unit 2, 140-150	140	150	Shell-m, composite sample	Beta-063141	1060	50	-0.1	257	433	619	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32070
LAN	CA-LAN-0705	396319	3739267	4	Floodplain	CSULB	Unit 2, 60-70	60	70	Shell-m, composite sample	Beta-063142	1180	50	-0.4	341	539	697	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32079
LAN	CA-LAN-0705	396319	3739267	4	Floodplain	CSULB	Unit 2, 200-210	200	210	Charcoal, wood	Beta-063601	810	110	-26.9	555	747	953	calib 8.10 IntCal20	Boxt, Matthew A. 2021	32065
LAN	CA-LAN-0705	396319	3739267	4	Floodplain	CSULB	Unit 8 200-210	200	210	Charcoal, wood	Beta-063602	730	60	-25	555	672	771	calib 8.10 IntCal20	Boxt, Matthew A. 2021	32064
LAN	CA-LAN-0705	396319	3739267	4	Floodplain	CSULB	Unit 13, 100-110	100	110	Shell-m, Aequipecten aequiscalatus	Beta-067537	960	60	0.9	122	347	532	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32066
LAN	CA-LAN-0705	396319	3739267	4	Floodplain	CSULB	Unit 13, 50-60	50	60	Shell-m, Aequipecten aequiscalatus	Beta-067538	1120	70	0.8	282	486	665	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32073
LAN	CA-LAN-0705	396319	3739267	4	Floodplain	CSULB	Unit 14, 90-100	90	100	Shell-m, Chione undatella	Beta-067539	1140	60	-0.3	303	504	668	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32077
LAN	CA-LAN-0705	396319	3739267	4	Floodplain	CSULB	Unit 14, 60-70	60	70	Shell-m, Chione undatella	Beta-067540	1000	60	-0.6	148	380	555	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32067
LAN	CA-LAN-0844	372026	3736450	353	Hill, ridge	Palos Verde Hills	nr			Shell-m, marine	Beta-002387	2410	70		1523	1788	2057	calib 8.10 Marine20; 70±65	Schroth, A. 1983	7616
LAN	CA-LAN-0844	372026	3736450	353	Hill, ridge	Palos Verde Hills	nr			Shell-m, marine	Beta-002388	3580	70		2935	3222	3476	calib 8.10 Marine20; 70±65	Schroth, A. 1983	7615
LAN	CA-LAN-0844	372026	3736450	353	Hill, ridge	Palos Verde Hills	nr			Shell-m, marine	Beta-002389	2260	60		1366	1608	1851	calib 8.10 Marine20; 70±65	Schroth, A. 1983	7617
LAN	CA-LAN-0844	372026	3736450	353	Hill, ridge	Palos Verde Hills	nr			Shell-m, marine	Beta-002390	6400	80		6307	6578	6846	calib 8.10 Marine20; 70±65	Schroth, A. 1983	7614
LAN	CA-LAN-0844	372026	3736450	353	Hill, ridge	Palos Verde Hills	30-40 cm	30	40	Shell-m, marine assumed	UCR-0583	980	100		85	359	595	calib 8.10 Marine20; 70±65	UCR 1981	7618
LAN	CA-LAN-0845	371700	3736629	349	Hill, ridge	Palos Verde Hills	20-30 cm	20	30	Shell-m, marine assumed	UCR-0582	3325	150		2497	2920	3340	calib 8.10 Marine20; 70±65	UCR 1981	7613
LAN	CA-LAN-0850	377468	3733301	235	Hill, ridge	Palos Verde Hills	TU 1, -30-40 cm	30	40	Shell-m, marine assumed	Beta-075924	4330	70	0.9	3874	4176	4458	calib 8.10 Marine20; 70±65	Singer, Clay A. 1994	32695
LAN	CA-LAN-0850	377468	3733301	235	Hill, ridge	Palos Verde Hills	TU 9, 80-90 cm	80	90	Shell-m, marine assumed	Beta-075925	4390	60	1.5	3968	4255	4523	calib 8.10 Marine20; 70±65	Singer, Clay A. 1994	32696
LAN	CA-LAN-0850	377468	3733301	235	Hill, ridge	Palos Verde Hills	250W/ON: 30-40 cm	30	40	Shell-m, marine	UCR-0615	6035	190		5725	6185	6643	calib 8.10 Marine20; 70±65	Greenwood	7611
LAN	CA-LAN-0850	377468	3733301	235	Hill, ridge	Palos Verde Hills	40-50 cm	40	50	Shell-m, marine assumed	UCR-0616	0	0				N/A - Modern	UCR 1981	7612	
LAN	CA-LAN-0999	373359	3735985	341	Terrace, coastal		1: 30-40 cm	30	40	Shell-m, Haliotis pieces	Beta-046022	750	70		1	154	345	calib 8.10 Marine20; 70±65	Gallegos, D. R. 1991	7610
LAN	CA-LAN-0999	373359	3735985	341	Terrace, coastal		1: 90-100 cm	90	100	Shell-m, Haliotis	Beta-046023	1030	60		202	406	608	calib 8.10 Marine20; 70±65	Gallegos, D. R. 1991	7609
LAN	CA-LAN-1000	397031	3738785	4	Floodplain	CSULB	Midden C, Unit 2, 70-80	70	80	Shell-m, Chione undatella	Beta-068370	740	70	1.1	1	147	334	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32062
LAN	CA-LAN-1000	397031	3738785	4	Floodplain	CSULB	Midden C, Unit 2, 100-110	100	110	Shell-m, Chione undatella	Beta-068371	1470	70	0.6	571	790	1007	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32063
LAN	CA-LAN-1000	397031	3738785	4	Floodplain	CSULB	Trench, 40	40	404	Shell-m, Aequipecten aequiscalatus	Beta-082388	800	70	0.4	1	191	392	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32082
LAN	CA-LAN-1002	396777	3739181	4		CSULB	Lot O, Auger B40, level 1	0	30	Shell-m, Pecten	Beta-061754, CAMS-006069	1690	60		1219	1431	1687	calib 8.10 Marine20; 70±65	Whitney-Desautels, Nancy A. 1993	32568
LAN	CA-LAN-1002	396777	3739181	4		CSULB	Lot O, Auger B40, level 2	30	60	Shell-m, Pecten	Beta-061755, CAMS-006070	1460	60		950	1189	1400	calib 8.10 Marine20; 70±65	Whitney-Desautels, Nancy A. 1993	32569
LAN	CA-LAN-1002	396777	3739181	4		CSULB	Lot O, Auger B40, level 3	60	90	Shell-m, Pecten	Beta-061756, CAMS-006071	1350	60		852	1081	1296	calib 8.10 Marine20; 70±65	Whitney-Desautels, Nancy A. 1993	32570
LAN	CA-LAN-1002	396777	3739181	4		CSULB	Lot O, Auger B40, level 4	90	120	Shell-m, Ostrea	Beta-061757, CAMS-006072	1350	60		852	1081	1296	calib 8.10 Marine20; 70±65	Whitney-Desautels, Nancy A. 1993	32571
LAN	CA-LAN-1002	396777	3739181	4		CSULB	Lot O, Auger B40, level 5	120	150	Shell-m, Pecten	Beta-061758, CAMS-006073	1660	60		1170	1400	1642	calib 8.10 Marine20; 70±65	Whitney-Desautels, Nancy A. 1993	32572
LAN	CA-LAN-1060	349753	3779707	307	Floodplain	Calabasas	15: 40-50 cm	40	50	Shell-m, marine assumed	Beta-009642	720	60		1	131	298	calib 8.10 Marine20; 70±65	Brown, R.S. 1986	7606

Appendix D-2: Archaeological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN	CA-LAN-1060	349753	3779707	307	Floodplain	Calabasas	15: 50-60 cm	50	60	Shell-m, marine assumed	Beta-009643	565	70		0	48	108	calib 8.10 Marine20; 70±65	Brown, R.S. 1986	7607
LAN	CA-LAN-1144	378044	3731923	90	Terrace, coastal	Palos Verdes	14: 40-50 cm	40	50	Shell-m, marine	Beta-022467	2460	120		1506	1851	2232	calib 8.10 Marine20; 70±65	Schilz, Personal Communication	7602
LAN	CA-LAN-1144	378044	3731923	90	Terrace, coastal	Palos Verdes	14: 60-70 cm	60	70	Shell-m, marine	Beta-022468	2290	80		1372	1644	1919	calib 8.10 Marine20; 70±65	Schilz, Personal Communication	7603
LAN	CA-LAN-1144	378044	3731923	90	Terrace, coastal	Palos Verdes	14: 80-90 cm	80	90	Shell-m, marine	Beta-022469	2180	60		1291	1517	1744	calib 8.10 Marine20; 70±65	Schilz, Personal Communication	7604
LAN	CA-LAN-1144	378044	3731923	90	Terrace, coastal	Palos Verdes	3: 100-110 cm	100	110	Shell-m, marine	Beta-022470	2640	70		1802	2072	2334	calib 8.10 Marine20; 70±65	Schilz, Personal Communication	7601
LAN	CA-LAN-1144	378044	3731923	90	Terrace, coastal	Palos Verdes	3: 110-120 cm	110	120	Shell-m, marine	Beta-022471	2650	70		1811	2085	2341	calib 8.10 Marine20; 70±65	Schilz, Personal Communication	7600
LAN	CA-LAN-1144	378044	3731923	90	Terrace, coastal	Palos Verdes	3: 120-130 cm	120	130	Shell-m, marine	Beta-022472	2860	70		2082	2353	2665	calib 8.10 Marine20; 70±65	Schilz, Personal Communication	7599
LAN	CA-LAN-1311H	400964	3766287	68		Whittier Narrows	STP 32: 0-40 cm	30	40	Charcoal	Beta-022265	1220	240		674	1125	1567	calib 8.10 IntCal20	Greenwood, R. S. 1989	7597
LAN	CA-LAN-1522	376173	3732598	112	Terrace, coastal	Rancho Palos Verdes	#1 (no context provided)	0	50	Shell-m, marine assumed	Beta-106102	3430	60	1.4	2781	3038	3298	calib 8.10 Marine20; 70±65	Bissell, Ronald 1997	32738
LAN	CA-LAN-1575/H	385895	3768949	86	Floodplain	Metro Water	Stratum IV, feature 2, cremation, child			Charcoal, wood	Beta-095426	120	40	-26.1	7	125	279	calib 8.10 IntCal20	Goldberg, Susan K. 1999	32061
LAN	CA-LAN-1575/H	385895	3768949	86		Metro Water	Stratum IV, feature 13, interment, adult			Charcoal, wood	Beta-095427	320	40	-26.8	300	389	477	calib 8.10 IntCal20	Goldberg, Susan K. 1999	32231
LAN	CA-LAN-1575/H	385895	3768949	86	Floodplain	Metro Water	Stratum IV, feature 11, cremation, adult			Charcoal, Cottonwood	Beta-105590	140	70	-25	1	146	289	calib 8.10 IntCal20	Goldberg, Susan K. 1999	32059
LAN	CA-LAN-1575/H	385895	3768949	86		Metro Water	Stratum IV, feature 1, interment, child			Charcoal, oak	Beta-105592	250	30	-29.1	1	296	428	calib 8.10 IntCal20	Goldberg, Susan K. 1999	32058
LAN	CA-LAN-1575/H	385895	3768949	86		Metro Water	Stratum III, feature 6, interment, adult			Charcoal, wood	Beta-105594	820	60	-25	662	733	904	calib 8.10 IntCal20	Goldberg, Susan K. 1999	32230
LAN	CA-LAN-1575/H	385895	3768949	86	Floodplain	Metro Water	Stratum IV, feature 7, interment, adult			Charcoal, Sycamore	Beta-120586	150	50	-12.9	1	146	284	calib 8.10 IntCal20	Goldberg, Susan K. 1999	32060
LAN	CA-LAN-1575/H	385895	3768949	86		Metro Water	Stratum III, interment, child			Charcoal, Sycamore	Beta-120587	1000	40	-25	792	901	959	calib 8.10 IntCal20	Goldberg, Susan K. 1999	32229
LAN	CA-LAN-2253	374323	3733730	62	Terrace, coastal	Portuguese Bend	PBC-1, Unit 1	50	60	Shell-m, marine	Beta-07	4360	70		4429	4735	5031	calib 8.10 Marine20; 70±65	Van Horn, David M. 1993	33348
LAN	CA-LAN-2253	374323	3733730	62	Terrace, coastal	Portuguese Bend	PBC-1, Unit 2	80	90	Shell-m, marine	Beta-07	4390	70		4449	4774	5077	calib 8.10 Marine20; 70±65	Van Horn, David M. 1993	33349
LAN	CA-LAN-2345	367526	3755487	41	Floodplain		Hearth?			Shell-m, marine assumed	Beta-084842	3480	80		2809	3099	3372	calib 8.10 Marine20; 70±65	Raschke, R. 1995	7595
LAN	CA-LAN-2616	397108	3738569	4	Floodplain	CSULB	Unit 4, 170-180	170	180	Shell-m, Chione undatella	Beta-068372	810	60	-2.7	1	198	392	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32085
LAN	CA-LAN-2616	397108	3738569	4	Floodplain	CSULB	Unit 4, 270-280	270	280	Shell-m, Chione undatella	Beta-068373	1010	70	-0.8	148	388	591	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32091
LAN	CA-LAN-2616	397108	3738569	4	Floodplain	CSULB	Unit 5, 180-90	180	190	Shell-m, Chione undatella	Beta-072311	980	70	1	123	363	553	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32090
LAN	CA-LAN-2616	397108	3738569	4	Floodplain	CSULB	Unit 5, 150-160	150	160	Shell-m, composite sample	Beta-072312	890	50	0.7	61	280	475	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32088
LAN	CA-LAN-2616	397108	3738569	4	Floodplain	CSULB	Unit 5, 210-220	210	220	Shell-m, Chione undatella	Beta-072313	1090	60	0.4	272	459	641	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32094
LAN	CA-LAN-2616	397108	3738569	4	Floodplain	CSULB	Unit 5, 270-280	270	280	Shell-m, Ostrea lurida	Beta-072314	1670	80		747	993	1240	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32097
LAN	CA-LAN-2616	397108	3738569	4	Floodplain	CSULB	Unit 6, 100-110	100	110	Shell-m, Chione undatella	Beta-072315	920	70	0.6	68	309	505	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32089
LAN	CA-LAN-2616	397108	3738569	4	Floodplain	CSULB	Unit 6, 140-150	140	150	Shell-m, Chione undatella	Beta-072316	880	60	0.5	44	269	472	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32087
LAN	CA-LAN-2616	397108	3738569	4	Floodplain	CSULB	Unit 6, 210-220	210	220	Shell-m, Chione undatella	Beta-072317	800	60	0.8	1	190	384	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32083
LAN	CA-LAN-2616	397108	3738569	4	Floodplain	CSULB	Unit 7, 100-110	100	110	Shell-m, Chione undatella	Beta-072318	1080	50	0.3	273	451	628	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32093
LAN	CA-LAN-2616	397108	3738569	4	Floodplain	CSULB	Unit 7, 180-190	180	190	Shell-m, Chione undatella	Beta-072319	1170	60	0.7	320	530	694	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32096
LAN	CA-LAN-2616	397108	3738569	4	Floodplain	CSULB	Unit 7, 220-230	220	230	Shell-m, Chione undatella	Beta-072320	1050	60	0.7	236	423	626	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32092
LAN	CA-LAN-2616	397108	3738569	4	Floodplain	CSULB	Unit 8, 150-160	150	160	Shell-m, Chione undatella	Beta-073473	810	60	0.5	1	198	392	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32086
LAN	CA-LAN-2616	397108	3738569	4	Floodplain	CSULB	Unit 4, 230-240	230	240	Shell-m, Chione undatella	Beta-074178	810	50	0.4	1	197	385	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32084
LAN	CA-LAN-2616	397108	3738569	4	Floodplain	CSULB	Unit 8, 320-330	320	330	Shell-m, Aequipecten aequisulcatus	Beta-074596	1170	70	0.1	313	530	707	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32095
LAN	CA-LAN-2629	396385	3738613	13	Terrace, coastal	CSULB	Unit 1, 80-90	80	90	Shell-m, Aequipecten aequisulcatus	Beta-077273	2470	60	0.8	1604	1860	2118	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32102
LAN	CA-LAN-2629	396385	3738613	13	Terrace, coastal	CSULB	Unit 1, 70-80	70	80	Shell-m, Aequipecten aequisulcatus	Beta-077274	2340	60	0.8	1456	1702	1960	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32100
LAN	CA-LAN-2629	396385	3738613	13	Terrace, coastal	CSULB	Unit 1, 50-60	50	60	Shell-m, Aequipecten aequisulcatus	Beta-077275	2310	60	0.7	1414	1666	1914	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32098
LAN	CA-LAN-2629	396385	3738613	13	Terrace, coastal	CSULB	Unit 1, 90-100	90	100	Shell-m, Aequipecten aequisulcatus	Beta-077276	2410	60	0.8	1534	1787	2040	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32101
LAN	CA-LAN-2629	396385	3738613	13	Terrace, coastal	CSULB	Unit 1, 100-110	100	110	Shell-m, Aequipecten aequisulcatus	Beta-077277	2320	60	0.5	1424	1678	1926	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32099

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County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	T-1, 40-50	40	50	Shell-m, composite sample	Beta-063487	990	60	1.2	143	372	548	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32119
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	A-28.7, 80-90	80	90	Shell-m, composite sample	Beta-063488	1080	60	0.6	265	450	636	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32130
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	A-13, 70-80	70	80	Shell-m, composite sample	Beta-063489	970	60	0.5	130	356	537	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32116
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	C-19, 0-10	0	10	Shell-m, composite sample	Beta-063490	1080	60	0.4	265	450	636	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32131
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	Y-4, 80-90	80	90	Shell-m, composite sample	Beta-063491	1070	60	0.6	256	441	632	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32128
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	V-4, 50-60	50	60	Shell-m, composite sample	Beta-063492	1280	70	0.8	430	618	834	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32147
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	C-4, 90-100	90	100	Shell-m, Aequipecten aequisulcatus	Beta-063819	1130	60	0.9	298	495	662	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32138
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	Locus 4, Unit 7, 40-50	40	50	Shell-m, composite sample	Beta-064265	1150	60	1.7	308	513	675	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32140
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	Locus 4, Unit 1, 60-70	60	70	Shell-m, composite sample	Beta-064266	1110	60	1.5	285	477	651	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32134
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	Locus 4, Unit 7, 80-90	80	90	Shell-m, composite sample	Beta-064267	1250	70	0.6	398	594	801	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32145
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	Locus 4, Unit 2, 50-40	40	40	Shell-m, composite sample	Beta-064268	920	60	0.4	79	310	501	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32106
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	Locus 4, Unit 3, 10-90	10	90	Shell-m, composite sample	Beta-064269	980	60	-0.2	137	364	542	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32117
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	V-6, 70-80	70	80	Shell-m, composite sample	Beta-064270	1110	70	0.4	276	477	660	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32133
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	TT.5-5, 40-50	40	50	Shell-m, composite sample	Beta-064271	940	70	0.4	85	328	521	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32110
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	TT.5-2, 30-40	30	40	Shell-m, composite sample	Beta-064272	960	60	1.2	122	347	532	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32111
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	Z-6, 10-20	10	20	Shell-m, composite sample	Beta-064273	1000	90	1.8	127	377	609	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32120
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	X-9, 90-100	90	100	Shell-m, composite sample	Beta-064274	1100	60	2	279	468	646	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32132
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	Z-7, 60-70	60	70	Shell-m, composite sample	Beta-064275	1130	70	1.9	287	495	671	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32137
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	Y-4,Y-5, 50-60	50	60	Shell-m, Chione undatella	Beta-068374	1460	70	0.1	561	781	992	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32150
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	V-7, 100-110	100	110	Shell-m, Aequipecten aequisulcatus	Beta-068517	1180	60	0.6	331	538	707	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32141
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	A-22, 0-10	0	10	Shell-m, Chione undatella	Beta-068816	920	60	0.7	79	310	501	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32107
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	A-22, 60-70	60	70	Shell-m, Chione undatella	Beta-068817	1030	60	0.5	202	406	608	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32122
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	A-28.7, 10-20	10	20	Shell-m, Chione undatella	Beta-068818	960	60	-0.2	122	347	532	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32112
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	C-19, 30-40	30	40	Shell-m, Aequipecten aequisulcatus	Beta-068820	1110	60	1.2	285	477	651	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32135
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	I-2, 10-10	0	10	Shell-m, Chione undatella	Beta-068821	1110	50	0.5	293	478	644	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32136
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	I-2, 100-110	100	110	Shell-m, Aequipecten aequisulcatus	Beta-068822	1220	60	0.7	382	570	759	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32144
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	Q-3, 20-30	20	30	Shell-m, Aequipecten aequisulcatus	Beta-068823	1030	60	1	202	406	608	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32123
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	T-1, 0-10	0	10	Shell-m, Chione undatella	Beta-068824	960	60	0.9	122	347	532	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32113
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	U.5-2, 20-30	30	30	Shell-m, Chione undatella	Beta-068825	790	60	0.6	1	181	375	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32103
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	Locus 4, Unit 1, 0-10	0	10	Shell-m, Chione undatella	Beta-068826	1190	60	0.1	341	547	718	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32143
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	Locus 4, Unit 2, 60-70	60	70	Shell-m, Chione undatella	Beta-068827	1270	60	-0.2	429	609	803	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32146
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	Locus 4, Unit 3, 0-10	30	10	Shell-m, Aequipecten aequisulcatus	Beta-068828	1140	60	1.1	303	504	668	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32139
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	Locus 4, Unit 3, 140-150	140	150	Shell-m, Aequipecten aequisulcatus	Beta-068829	1190	70	1.2	327	546	726	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32142
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	Locus 4, Unit 7, 130-140	130	140	Shell-m, Chione undatella	Beta-068830	1290	40	0	463	623	798	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32148

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LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	A-6, 20-30	20	30	Shell-m, Chione undatella	Beta-068880	830	60	0.1	1	216	407	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32104
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	A-10, 0.10	0	10	Shell-m, Chione undatella	Beta-068881	960	60	0.5	122	347	532	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32114
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	X-4, 10-20	10	20	Shell-m, Chione undatella	Beta-068882	1050	60	0.6	236	423	626	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32124
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	X-7, 40-50	40	50	Shell-m, Chione undatella	Beta-068883	1050	60	0.4	236	423	626	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32125
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	X-9, 40-50	40	50	Shell-m, Chione undatella	Beta-068884	980	60	0.6	137	364	542	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32118
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	Y-1020-30	20	30	Shell-m, Chione undatella	Beta-068885	1060	60	0.6	247	432	629	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32127
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	Y-10, 40-50	20	50	Shell-m, Chione undatella	Beta-068886	940	60	0.7	99	330	515	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32109
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	Z-7, 10-20	10	20	Shell-m, Chione undatella	Beta-068887	1050	50	0.5	247	424	616	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32126
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	Z-9, 10-20	10	20	Shell-m, Chione undatella	Beta-068888	960	60	0.8	122	347	532	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32115
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	A-13, 0-40	0	40	Shell-m, Chione undatella	Beta-069139	930	60	0.4	89	320	508	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32108
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	Y-4, 10-23	10	23	Shell-m, Chione undatella	Beta-069140	900	60	-0.5	62	290	487	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32105
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	X-4, 10-20	10	20	Shell-m, Chione undatella	Beta-072323	1340	60	-0.9	498	670	881	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32149
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	X-7, 20-30	20	30	Shell-m, Chione undatella	Beta-072324	1020	50	0.5	187	398	590	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32121
LAN	CA-LAN-2630	396860	3738967	4	Floodplain	CSULB	X-7, 60-70	60	70	Shell-m, Chione undatella	Beta-072325	1070	60	1	256	441	632	calib 8.10 Marine20; 70±65	Boxt, Matthew A. 2021	32129
LAN	CA-LAN-2757	386817	3754569	28	Floodplain	Alameda Corridor	Adult female, 2000-52414	230	270	Bone, human collagen	Beta-176275	890	40	-18.5	725	791	913	calib 8.10 IntCal20	Mirro, Vanessa A. 2005	32850
LAN	CA-LAN-2768	370475	3761029	7	Floodplain	Ballona	CA-LAN-2768 14754			Shell-m, Venus clam	Beta-220629	2480	40	-0.1	1640	1872	2108	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32975
LAN	CA-LAN-2768	370475	3761029	7	Floodplain	Ballona	CA-LAN-2768 16CE9			Shell-m, Scallop	Beta-220630	2810	40	0.3	2027	2280	2542	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32976
LAN	CA-LAN-2768	370475	3761029	7	Floodplain	Ballona	CA-LAN-2768 145F1			Shell-m, Venus clam	Beta-220631	2400	40	-0.2	1541	1775	1995	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32977
LAN	CA-LAN-2768	370475	3761029	7	Floodplain	Ballona	CA-LAN-2768 14468			Shell-m, Venus clam	Beta-220632	2600	40	-3.3	1799	2022	2282	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32978
LAN	CA-LAN-2768	370475	3761029	7	Floodplain	Ballona	CA-LAN-2768 1486E			Shell-m, Venus clam	Beta-220633	2210	40	-2.4	1336	1550	1764	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32979
LAN	CA-LAN-2768	370475	3761029	7	Floodplain	Ballona	CA-LAN-2768 403AD			Shell-m, Venus clam	Beta-220634	2580	40	-0.2	1763	1996	2257	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32980
LAN	CA-LAN-2768	370475	3761029	7	Floodplain	Ballona	CA-LAN-2768 403A9			Shell-m, Venus clam	Beta-220635	2660	40	-0.1	1868	2098	2323	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32981
LAN	CA-LAN-2768	370475	3761029	7	Floodplain	Ballona	CA-LAN-2768 403B8			Shell-m, Venus clam	Beta-220636	2560	40	1.1	1725	1970	2215	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32982
LAN	CA-LAN-2768	370475	3761029	7	Floodplain	Ballona	CA-LAN-2768 403DB			Shell-m, Venus clam	Beta-220637	2630	40	0.1	1832	2060	2298	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32983
LAN	CA-LAN-2768	370475	3761029	7	Floodplain	Ballona	CA-LAN-2768 403E8			Shell-m, Venus clam	Beta-220638	2550	40	-0.5	1714	1958	2197	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32984
LAN	CA-LAN-2768	370475	3761029	7	Floodplain	Ballona	CA-LAN-2768 4039E			Shell-m, Venus clam	Beta-220639	2620	40	0.3	1822	2047	2293	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32985
LAN	CA-LAN-2768	370475	3761029	7	Floodplain	Ballona	CA-LAN-2768 403FC			Shell-m, Venus clam	Beta-220640	2690	40	1.1	1895	2135	2346	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	32986
LAN	CA-LAN-2768	370475	3761029	7	Floodplain	Ballona	CA-LAN-2768 405			Shell-m, Littleneck clam	Beta-230289	2650	40	-1.6	1857	2085	2316	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33007
LAN	CA-LAN-2768	370475	3761029	7	Floodplain	Ballona	CA-LAN-2768 491			Shell-m, Littleneck clam	Beta-230293	2740	40	-2.2	1948	2195	2424	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33011
LAN	CA-LAN-2768	370475	3761029	7	Floodplain	Ballona	CA-LAN-2768 543			Shell-m, Littleneck clam	Beta-230294	2880	40	-1.6	2141	2381	2652	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33012
LAN	CA-LAN-2768	370475	3761029	7	Floodplain	Ballona	CALAN276816F28			Shell-m, Scallop	Beta-230910	2460	40	0.3	1616	1847	2083	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33017
LAN	CA-LAN-2768	370475	3761029	7	Floodplain	Ballona	CALAN2768A26			Shell-m, Venus clam	Beta-231606	2550	40	0.2	1714	1958	2197	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33018
LAN	CA-LAN-2768	370475	3761029	7	Floodplain	Ballona	CALAN2768A4E			Shell-m, Scallop	Beta-231607	2670	40	-1.2	1878	2110	2331	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33019
LAN	CA-LAN-2768	370475	3761029	7	Floodplain	Ballona	CALAN2768F42			Shell-m, Venus clam	Beta-235883	3970	40	-0.3	3456	3700	3938	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33055

Appendix D-2: Archaeological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN	CA-LAN-2768	370475	3761029	7	Floodplain	Ballona	CALAN2768F48			Shell-m, Venus clam	Beta-235884	2530	40	-0.1	1697	1934	2167	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33056
LAN	CA-LAN-2768	370475	3761029	7	Floodplain	Ballona	CALAN2768E48			Shell-m, Scallop	Beta-241770	2690	40	0.1	1895	2135	2346	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33077
LAN	CA-LAN-2768	370475	3761029	7	Floodplain	Ballona	CALAN27680D9			Shell-m, Scallop	Beta-241771	2850	40	-0.3	2094	2338	2613	calib 8.10 Marine20; 70±65	Statistical Research Inc. 2022	33078
LAN	CA-LAN-2768	370475	3761029	7	Floodplain	Ballona	CALAN2768DFC			Plant, Canary grass seed	Beta-242490	270	40	-22.4	1	330	459	calib 8.10 IntCal20	Statistical Research Inc. 2022	33083
LAN	CA-LAN-2792	386777	3754707	28	Floodplain	Alameda Corridor	Adult female, 2000-52413			Bone, human tooth	Beta-176276	990	40	-18.6	792	868	957	calib 8.10 IntCal20	Mirro, Vanessa A. 2005	32851
LAN	CA-LAN-2792	386777	3754707	28	Floodplain	Alameda Corridor	Adult female, 2000-53181			Bone, human tooth	Beta-176277	880	40	-18.8	692	780	909	calib 8.10 IntCal20	Mirro, Vanessa A. 2005	32852
LAN	CA-LAN-2792	386777	3754707	28	Floodplain	Alameda Corridor	Adult female, 2000-1			Bone, human tooth	Beta-176278	940	40	-19	743	847	925	calib 8.10 IntCal20	Mirro, Vanessa A. 2005	32853
LAN	CA-LAN-2796	386575	3756014	32	Floodplain	Alameda Corridor	Adult female, 2000-50980			Bone, human tooth	Beta-176279	540	40	-18.8	507	549	640	calib 8.10 IntCal20	Mirro, Vanessa A. 2005	32854
LAN	CA-LAN-2801	375450	3733152	105	Terrace, coastal	Palos Verdes	OTPV-5, Unit 3, Abalone layer on bedrock at base of site	74	74	Shell-m, Haliotis	Beta-130316	4070	70	0	3679	3924	4160	calib 8.10 Marine20; 70±65	Stickel, Gary E. 1999	32787
LAN	CA-LAN-2801	375450	3733152	105	Terrace, coastal	Palos Verdes	OTPV-5, Unit 4, Feature 2	12	17	Plant, fiber with asphaltum	Beta-130317	180	40	-26	1	171	303	calib 8.10 IntCal20	Stickel, Gary E. 1999	32788
ORA	CA-ORA-0044	417745	3724062	17		San Diego Creek	2: 50-60 cm	50	60	Shell-m, Chione	UCLA-21458	3700	80		3073	3369	3660	calib 8.10 Marine20; 70±65	Schroth, A. 1983	6638
ORA	CA-ORA-0044	417745	3724062	17		San Diego Creek	2: 20-30 cm	20	30	Shell-m, Chione	UCLA-2145F	2060	80		1157	1394	1666	calib 8.10 Marine20; 70±65	Schroth, A. 1983	6639
ORA	CA-ORA-0051	417567	3720653	4		Coney Island	10 cm	10	10	Shell-m, Chione	UCR-0515	1390	100		490	721	967	calib 8.10 Marine20; 70±65	Schroth, A. 1979	6637
ORA	CA-ORA-0057	420795	3724343	2	Floodplain	San Joaquin Hills	2: 10-20 cm	10	20	Shell-m, Chione	Beta-030380	1500	80		600	819	1064	calib 8.10 Marine20; 70±65	de Barros, P. 1990	6636
ORA	CA-ORA-0057	420795	3724343	2	Floodplain	San Joaquin Hills	3: 30-40 cm	30	40	Shell-m, Chione	Beta-030381	1540	80		637	856	1106	calib 8.10 Marine20; 70±65	de Barros, P. 1990	6635
ORA	CA-ORA-0058	412684	3725157	24	Terrace, Coastal	Costa Mesa, Fairview	G-11: lower stratum			Bone, human collagen	GX-01789	1600	105		1306	1487	1702	calib 8.10 IntCal20	Dixon, K.A. 1970	2751
ORA	CA-ORA-0058	412684	3725157	24	Terrace, Coastal	Costa Mesa, Fairview	J-2: lower stratum			Bone, human collagen	GX-01790	2140	210		1627	2123	2710	calib 8.10 IntCal20	Dixon, K.A. 1970, Stuiver, M. 1964, Flint, R. F. 1958, Smith, G. I. 1962, Jefferies 1997, Jeffries 1982, Colman, S.M. 2009, Benson, Larry 2002, Brown 1983	2752
ORA	CA-ORA-0058	412684	3725157	24	Terrace, Coastal	Costa Mesa, Fairview	E-1 & E-2: lower stratum			Bone, human apatite	GX-01964	2440	190		1998	2500	2929	calib 8.10 IntCal20	Dixon, K.A. 1970	2983
ORA	CA-ORA-0058	412684	3725157	24	Terrace, Coastal	Costa Mesa, Fairview	D-8: upper stratum			Bone, human collagen	GX-01965	960	110		672	863	1174	calib 8.10 IntCal20	Dixon, K.A. 1970	2984
ORA	CA-ORA-0058	412684	3725157	24	Terrace, Coastal	Costa Mesa, Fairview	H-10: upper stratum			Bone, human collagen	GX-01966	1260	140		828	1161	1411	calib 8.10 IntCal20	Dixon, K.A. 1970	2985
ORA	CA-ORA-0058	412684	3725157	24	Terrace, Coastal	Costa Mesa, Fairview	D-8: lower stratum			Bone, human collagen	UCLA-1496A	2470	60		2364	2555	2719	calib 8.10 IntCal20	Dixon, K.A. 1970	6628
ORA	CA-ORA-0058	412684	3725157	24	Terrace, Coastal	Costa Mesa, Fairview	E-9: lower stratum			Shell-m, marine assumed	UCLA-1496B	3685	100		3017	3349	3680	calib 8.10 Marine20; 70±65	Dixon, K.A. 1970	6627
ORA	CA-ORA-0058	412684	3725157	24	Terrace, Coastal	Costa Mesa, Fairview	K-1: lower stratum			Shell-m, marine assumed	UCLA-1496C	1750	60		860	1074	1286	calib 8.10 Marine20; 70±65	Dixon, K.A. 1970	6633
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 1	70	80	Shell-m, Chione	CAMS-020403	4390	60		3968	4255	4523	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33096
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 2	20	30	Shell-m, Chione	CAMS-020404	4340	60		3898	4189	4454	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33097
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 2	10	20	Shell-m, Argopecten	CAMS-020405	4390	60		3968	4255	4523	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33098
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 3	20	30	Shell-m, Chione	CAMS-020406	5260	50		5099	5359	5579	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33099
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 7	10	20	Shell-m, Mytilus	CAMS-020407	7700	60		7684	7905	8137	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33100
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 7	10	20	Shell-m, Chione	CAMS-020408	7900	60		7910	8115	8344	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33101
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 6	10	20	Shell-m, Protohaca	CAMS-020409	9010	60		9189	9447	9706	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33102
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 9	0	10	Shell-m, Chione	CAMS-020410	8800	50		8984	9211	9437	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33103
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 9	10	20	Shell-m, Chione	CAMS-020411	6210	60		6160	6375	6627	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33104
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 10	0	10	Shell-m, Argopecten	CAMS-020412	5980	50		5903	6128	6333	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33105
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 11	0	10	Shell-m, Haliotis	CAMS-020413	6040	50		5952	6193	6401	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33106
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 38	30	40	Shell-m, Chione	CAMS-020414	7360	60		7375	7577	7792	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33107
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 64	30	40	Shell-m, Chione	CAMS-020415	4980	60		4779	5016	5294	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33108
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 73	60	70	Shell-m, Tivela	CAMS-020416	8640	50		8718	9012	9279	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33109
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 101	70	80	Shell-m, Mytilus	CAMS-022800	6240	60		6186	6407	6646	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33110
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 55	80	90	Shell-m, Mytilus	CAMS-022801	7730	60		7714	7938	8166	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33111
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 0	0	1	Shell-m, Mytilus	CAMS-022802	6240	60		6186	6407	6646	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33112
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 101	70	80	Shell-m, Mytilus	CAMS-033401	6130	60		6037	6291	6530	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33113
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 550	80	90	Shell-m, Mytilus	CAMS-033402	6160	60		6085	6324	6573	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33114
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 1054	0	20	Shell-m, Mytilus	CAMS-033403	7470	60		7482	7682	7905	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33115
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 156	100	110	Shell-m, Mytilus	CAMS-037448	8700	60		8806	9092	9374	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33116
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 156	60	70	Shell-m, Mytilus	CAMS-037449	8770	60		8934	9176	9432	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33117
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 156	60	90	Shell-m, Mytilus	CAMS-037450	8250	60		8249	8493	8777	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33118
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 158	30	40	Shell-m, Mytilus	CAMS-037451	8690	50		8791	9080	9338	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33119
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 158	90	100	Shell-m, Mytilus	CAMS-037452	8700	60		8806	9092	9374	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33120
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 158	50	60	Shell-m, Mytilus	CAMS-037453	8690	60		8783	9080	9357	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33121
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 158	70	80	Shell-m, Mytilus	CAMS-037454	8720	60		8850	9117	9397	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33122

Appendix D-2: Archaeological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 1856	0	20	Shell-m, Olivella shell bead	CAMS-042591	8870	50		9040	9293	9492	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33123
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 1149	10	20	Shell-m, Mytilus	CAMS-043275	4570	230		3840	4485	5121	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33124
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 51	60	70	Shell-m, Olivella bead	CAMS-043523	8370	50		8403	8645	8929	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33125
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 13 or 147, 70-80 cm	70	80	Shell-m, Olivella bead	CAMS-043524	8840	50		9015	9258	9464	calib 8.10 Marine20; 70±65	Koerper 1981, Jones 2007	15472
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 92	80	90	Shell-m, Olivella bead	CAMS-043525	8400	50		8438	8686	8961	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33126
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 268, 0-50 cm	0	50	Shell-m, Olivella bead	CAMS-043526	8950	120		9001	9375	9732	calib 8.10 Marine20; 70±65	Glassow 1996, Jones 2007	15469
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 510	30	40	Shell-m, Olivella bead	CAMS-043527	7730	50		7727	7938	8160	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33127
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 105	80	90	Shell-m, Olivella bead	CAMS-043528	8580	50		8630	8921	9198	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33128
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 418	60	70	Shell-m, Olivella bead	CAMS-043529	8660	50		8748	9041	9303	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33129
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 886	40	50	Shell-m, Olivella bead	CAMS-043530	8490	50		8533	8801	9059	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33130
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 1893	70	80	Shell-m, Olivella bead	CAMS-043531	7620	60		7603	7825	8026	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33131
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	1650, 10-50 cm	10	50	Shell-m, Olivella bead	CAMS-043532	8850	60		9013	9268	9480	calib 8.10 Marine20; 70±65	Macko 1998, Jones 2007	15471
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 1652	10	50	Shell-m, Olivella bead	CAMS-043533	8370	60		8396	8647	8940	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33132
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 1652	10	50	Shell-m, Olivella bead	CAMS-043534	8580	50		8630	8921	9198	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33133
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Unit 1736	10	40	Shell-m, Olivella bead	CAMS-043535	8660	50		8748	9041	9303	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	33134
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	1856, 0-20 cm	0	20	Shell-m, Olivella bead	CAMS-043591	8870	50		9040	9293	9492	calib 8.10 Marine20; 70±65	Erlanson 2005, Jones 2007	15470
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Control 2: 70-80 cm	70	80	Shell-m, marine assumed	GAK-04129	6435	130		6279	6620	6975	calib 8.10 Marine20; 70±65	Drover, C. E. 1972	6619
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Col. Pit A: 10-20 cm	10	20	Shell-m, marine assumed	GAK-04130	7075	150		6940	7308	7640	calib 8.10 Marine20; 70±65	Schroth, A. 1979, Drover, C. E. 1975	6610
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Col. Pit A: 10-20 cm	10	20	Shell-m, marine assumed	GAK-04131	6300	130		6145	6475	6839	calib 8.10 Marine20; 70±65	Schroth, A. 1979, Drover, C. E. 1975	6621
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Col. Pit A: 20-30 cm	20	30	Shell-m, marine assumed	GAK-04132	7150	150		7012	7381	7708	calib 8.10 Marine20; 70±65	Schroth, A. 1979, Drover, C. E. 1975	6609
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Col. Pit A: 30-40 cm	30	40	Shell-m, marine assumed	GAK-04133	6420	150		6230	6605	7001	calib 8.10 Marine20; 70±65	Schroth, A. 1979, Drover, C. E. 1975	6620
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Col. Pit A: 40-50 cm	40	50	Shell-m, marine assumed	GAK-04134	6220	130		6032	6389	6733	calib 8.10 Marine20; 70±65	Schroth, A. 1979, Drover, C. E. 1975	6623
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Col. Pit A: 50-60 cm	50	60	Shell-m, marine assumed	GAK-04135	6560	135		6405	6762	7139	calib 8.10 Marine20; 70±65	Schroth, A. 1979, Drover, C. E. 1975	6617
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Col. Pit A: 60-70 cm	60	70	Shell-m, marine assumed	GAK-04136	6960	140		6830	7193	7516	calib 8.10 Marine20; 70±65	Schroth, A. 1979, Drover, C. E. 1975	6612
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Col. Pit A: 70-80 cm	70	80	Shell-m, marine assumed	GAK-04137	6970	140		6844	7203	7529	calib 8.10 Marine20; 70±65	Schroth, A. 1979, Drover, C. E. 1975	6611
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Col. Pit A: 80-90 cm	80	90	Shell-m, marine assumed	GAK-04138	6680	130		6544	6897	7246	calib 8.10 Marine20; 70±65	Schroth, A. 1979, Drover, C. E. 1975	6615
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	S4/E1: 20-30 cm	20	30	Shell-m, marine assumed	UCLA-1777A	5580	80		5442	5699	5953	calib 8.10 Marine20; 70±65	Schroth, A. 1979, Drover, C. E. 1975	6625
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	S4/E1: 80-90 cm	80	90	Shell-m, marine assumed	UCLA-1777B	6560	80		6475	6761	7048	calib 8.10 Marine20; 70±65	Schroth, A. 1979, Drover, C. E. 1975	6618
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	S4/E1: 70-80 cm	70	80	Shell-m, marine assumed	UCLA-1777C	4900	80		4615	4918	5247	calib 8.10 Marine20; 70±65	Schroth, A. 1979, Drover, C. E. 1975	6626
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Col. Pit A: 60-70 cm	60	70	Shell-m, marine assumed	UCR-0327	6280	215		5938	6458	6967	calib 8.10 Marine20; 70±65	Drover, C. E. 1979	6622
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Con 2, Quad B: 70-80 cm	70	80	Shell-m, marine assumed	UCR-0328	6610	275		6217	6814	7411	calib 8.10 Marine20; 70±65	Schroth, A. 1979, Drover, C. E. 1979	6616
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Col. Pit A: 30-40 cm	30	40	Shell-m, marine assumed	UCR-0329	6840	260		6458	7053	7586	calib 8.10 Marine20; 70±65	Schroth, A. 1979, Drover, C. E. 1979	6613
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Col. Pit A: 70-80 cm	70	80	Shell-m, marine assumed	UCR-0330	6820	220		6520	7037	7508	calib 8.10 Marine20; 70±65	Schroth, A. 1979, Drover, C. E. 1979	6614
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	P-210: 60-80 cm	60	80	Shell-m, Chione	UCR-0509	8445	280		8102	8762	9452	calib 8.10 Marine20; 70±65	Koerper, H. C. 1981	6605
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	P-210 (SW): 60-80 cm	60	80	Shell-m, Chione	UCR-0510	8045	270		7691	8291	8971	calib 8.10 Marine20; 70±65	Koerper, H. C. 1981, UCR 1986	6606
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	D-2: 40-60 cm	40	60	Shell-m, Chione	UCR-0511	7925	270		7567	8157	8832	calib 8.10 Marine20; 70±65	Koerper, H. C. 1981, UCR 1986	6607
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	J-2: 40-60 cm	40	60	Shell-m, Chione	UCR-0512	7165	250		6840	7388	7919	calib 8.10 Marine20; 70±65	Koerper, H. C. 1981, UCR 1986	6608
ORA	CA-ORA-0064	417755	3720625	28	Terrace, coastal	Irvine	Sterrett 2: 60-80 cm	60	80	Shell-m, Chione	UCR-0513	5995	190		5684	6141	6601	calib 8.10 Marine20; 70±65	Koerper, H. C. 1981, UCR 1986	6624
ORA	CA-ORA-0082	405862	3728849	22	Terrace, Coastal	Bolsa Chica	AA-16: 30-50 cm	30	50	Shell-m, marine	UCR-0277	4340	200		3640	4187	4767	calib 8.10 Marine20; 70±65	Radiocarbon 1982	6604
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Column Sample #1	75	90	Shell-m, Tivella	Beta-010742	6140	80		6448	6746	7038	calib 8.10 Marine20; 70±65		32498
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Column Sample #1	90	105	Shell-m, Tivella	Beta-010743	1750	80		1250	1494	1772	calib 8.10 Marine20; 70±65		32499
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Column Sample #2	85	100	Shell-m, Tivella	Beta-010744	5380	100		5607	5923	6212	calib 8.10 Marine20; 70±65		32500

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County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Column Sample #2	100	115	Shell-m, Tivella	Beta-010745	6480	110		6800	7119	7414	calib 8.10 Marine20; 70±65		32501
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Column Sample #3-2	0	15	Shell-m, Tivella	Beta-010867	4430	100		4489	4831	5220	calib 8.10 Marine20; 70±65		32502
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Column Sample #3-2	15	30	Shell-m, Tivella	Beta-010868	5100	90		5331	5622	5894	calib 8.10 Marine20; 70±65		32503
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Column Sample #3-2	30	45	Shell-m, Tivella	Beta-010869	5190	100		5416	5717	6021	calib 8.10 Marine20; 70±65		32504
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Column Sample #3-2	45	60	Shell-m, Tivella	Beta-010870	5530	70		5828	6083	6335	calib 8.10 Marine20; 70±65		32505
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Column Sample #3-2	60	75	Shell-m, Tivella	Beta-010871	6070	80		6383	6665	6954	calib 8.10 Marine20; 70±65		32506
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Column Sample #3-2	75	90	Shell-m, Tivella	Beta-010872	6100	80		6407	6700	6985	calib 8.10 Marine20; 70±65		32507
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Column Sample #3-2	90	105	Shell-m, Tivella	Beta-010873	5940	80		6260	6521	6800	calib 8.10 Marine20; 70±65		32508
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Column Sample #3-2	105	120	Shell-m, Tivella	Beta-010874	6820	80		7220	7456	7685	calib 8.10 Marine20; 70±65		32509
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Column Sample #3-2	120	130	Shell-m, Tivella	Beta-011044	5990	150		6200	6580	6980	calib 8.10 Marine20; 70±65		32510
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Feature 18			Shell-m, Tivella	Beta-069405	7360	50		7743	7978	8198	calib 8.10 Marine20; 70±65	Mason, Roger D. 2016	29662
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit Z9, Quad E, Feature 23			Shell-m, Tivella	Beta-069406	7320	50		7712	7934	8163	calib 8.10 Marine20; 70±65		32577
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit Z4, Quad N, Feature 22			Shell-m, Tivella	Beta-069407	7410	60		7801	8032	8279	calib 8.10 Marine20; 70±65		32578
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit X2, Quad SE, Feature 14			Shell-m, Tivella	Beta-069408	7500	60		7907	8122	8357	calib 8.10 Marine20; 70±65		32579
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit Z9, Quad E, Feature23			Shell-m, Tivella	Beta-069409	8520	60		9064	9352	9569	calib 8.10 Marine20; 70±65		32580
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit Z9, Quad E, Feature23			Shell-m, Tivella	Beta-069410	7560	60		7953	8185	8398	calib 8.10 Marine20; 70±65		32581
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit Z9, Quad E, Feature23			Shell-m, Tivella	Beta-069411	7770	60		8163	8411	8674	calib 8.10 Marine20; 70±65		32582
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit Z9, Quad E, Feature23			Shell-m, Tivella	Beta-069412	8120	60		8542	8847	9134	calib 8.10 Marine20; 70±65		32583
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit Z9, Quad E, Feature23			Shell-m, Tivella	Beta-069413	8660	60		9260	9516	9822	calib 8.10 Marine20; 70±65		32584
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit X2, Quad SE, Feature 14			Shell-m, Tivella	Beta-069414	7320	90		7661	7936	8203	calib 8.10 Marine20; 70±65		32585
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Feature 17			Shell-m, Tivella	Beta-069415	7320	50		7712	7934	8163	calib 8.10 Marine20; 70±65	Mason, Roger D. 2016	29663
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit J2, Quad SW, Feature 18	40	40	Shell-m, Tivella	Beta-069416	7390	60		7776	8010	8259	calib 8.10 Marine20; 70±65		32586
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit AAS, Quad NE	80	90	Shell-m, Tivella	Beta-072575	5240	60		5519	5767	6010	calib 8.10 Marine20; 70±65		32589
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit BB8, Quad NE	60	70	Shell-m, Tivella	Beta-072576	1720	60		1247	1461	1706	calib 8.10 Marine20; 70±65		32590
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit CCB, Quad SW	60	70	Shell-m, Tivella	Beta-072577	4500	60		4642	4926	5239	calib 8.10 Marine20; 70±65		32591
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit L3, Quad SW	90	100	Shell-m, Tivella	Beta-072578	4410	60		4508	4802	5111	calib 8.10 Marine20; 70±65		32592
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit D1, Quad SW	100	110	Shell-m, Tivella	Beta-072579	5470	70		5757	6024	6271	calib 8.10 Marine20; 70±65		32593
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit D52, Quad NE	140	150	Shell-m, Tivella	Beta-072580	5150	60		5440	5675	5914	calib 8.10 Marine20; 70±65		32594
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit 8, Quad W, Feature1	60	70	Shell-m, Tivella	Beta-075112	7200	90		7559	7813	8080	calib 8.10 Marine20; 70±65		32667
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit 36, Quad SE, Feature7	120	130	Shell-m, Tivella	Beta-075113	7400	100		7740	8022	8314	calib 8.10 Marine20; 70±65		32668
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit 36, Quad NE, Feature7	120	130	Shell-m, Tivella	Beta-075114	7780	60		8162	8424	8712	calib 8.10 Marine20; 70±65		32669
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit N3, Quad SW, Feature8	40	60	Shell-m, Tivella	Beta-075115	7200	100		7553	7814	8104	calib 8.10 Marine20; 70±65		32670
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit L2, Quad NE, Feature12	40	50	Shell-m, Tivella	Beta-075116	6840	180		7065	7474	7876	calib 8.10 Marine20; 70±65		32671
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit AAS, Quad E, Feature13	60	70	Shell-m, Tivella	Beta-075117	6830	120		7165	7465	7752	calib 8.10 Marine20; 70±65		32672

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ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit X2, Quad SE, Feature14	70	80	Shell-m, Tivella	Beta-075118	6950	80		7340	7575	7822	calib 8.10 Marine20; 70±65		32673
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit N2, Quad NN, Feature15	60	80	Shell-m, Tivella	Beta-075119	6900	90		7279	7529	7780	calib 8.10 Marine20; 70±65		32674
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit AA3, Quad NE, Feature19	60	70	Shell-m, Tivella	Beta-075120	7440	120		7748	8064	8370	calib 8.10 Marine20; 70±65		32675
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit FF6, Quad SE, Feature25	27	33	Shell-m, Tivella	Beta-075121	6680	100		7032	7325	7578	calib 8.10 Marine20; 70±65		32676
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit 4, Quad SE, Feature BC-I	70	80	Shell-m, Tivella	Beta-075122	7770	70		8140	8413	8721	calib 8.10 Marine20; 70±65		32677
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit 8, Quad NW, Feature BC-II	80	90	Shell-m, Tivella	Beta-075123	1600	80		1072	1338	1598	calib 8.10 Marine20; 70±65		32678
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit 11, Quad SE, Feature BC-III	50	60	Shell-m, Tivella	Beta-075124	4560	50		4760	5000	5287	calib 8.10 Marine20; 70±65		32679
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit D19, Quad SW, Feature BC-V	50	60	Shell-m, Tivella	Beta-075125	7140	110		7470	7758	8032	calib 8.10 Marine20; 70±65		32680
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit 14, Quad NN, Feature BC-VII	60	80	Shell-m, Tivella	Beta-075126	7190	80		7557	7803	8042	calib 8.10 Marine20; 70±65		32681
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit 14, Quad NN, Feature BC-VII	60	70	Shell-m, Tivella	Beta-075127	6990	110		7349	7615	7907	calib 8.10 Marine20; 70±65		32682
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit 15, Quad SE, Feature BC-VIII	70	80	Shell-m, Tivella	Beta-075128	6710	90		7089	7353	7597	calib 8.10 Marine20; 70±65		32683
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit D16, Quad SW, Feature BC-IX	70	80	Shell-m, Tivella	Beta-075129	4040	130		3922	4328	4765	calib 8.10 Marine20; 70±65		32684
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit L1, Quad SE, Feature BC-XV	50	60	Shell-m, Tivella	Beta-075130	6750	70		7161	7391	7601	calib 8.10 Marine20; 70±65		32685
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit L1, Quad SE, Feature BC-XV	50	60	Shell-m, Tivella	Beta-075131	6900	140		7213	7531	7864	calib 8.10 Marine20; 70±65		32686
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit BB10, Quad SW, Feature BC-XX	60	80	Shell-m, Tivella	Beta-075132	7150	70		7547	7765	7997	calib 8.10 Marine20; 70±65		32687
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit CC8, Quad NN, Feature BC-XXIII	50	60	Shell-m, Tivella	Beta-075133	6730	50		7165	7373	7566	calib 8.10 Marine20; 70±65		32688
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit Z, Quad S, Feature BC-XXVIII	40	50	Shell-m, Tivella	Beta-075134	6770	140		7062	7407	7733	calib 8.10 Marine20; 70±65		32689
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit 21, Quad SE, Feature BC-XXX	80	90	Shell-m, Tivella	Beta-075135	6910	100		7276	7538	7806	calib 8.10 Marine20; 70±65		32690
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit ZS, Quad SW, Feature BC-XXXII	90	100	Shell-m, Tivella	Beta-075136	7120	50		7536	7737	7947	calib 8.10 Marine20; 70±65		32691
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit D45, Quad NE, Feature BC-XI	90	100	Shell-m, Tivella	Beta-075137	3420	60		3268	3524	3810	calib 8.10 Marine20; 70±65		32692
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit X2, Quad SE, Feature BC-XVIII	70	80	Shell-m, Tivella	Beta-075138	6960	60		7377	7584	7813	calib 8.10 Marine20; 70±65		32693
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit BB1, Quad N, Feature10	40	50	Shell-m, Tivella	Beta-075139	8020	70		8423	8722	9002	calib 8.10 Marine20; 70±65		32694
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Bolsa Chica			Shell-m, Cypraea cervinetta	Beta-127334	1340	60		498	670	881	calib 8.10 Marine20; 70±65	Koerper, H. C. 1999	6603
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Column Sample #3-1	0	15	Shell-m, Tivella	UCLA-2560A	3370	100		3141	3465	3817	calib 8.10 Marine20; 70±65		33282
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Column Sample #3-1	15	30	Shell-m, Tivella	UCLA-2560B	5300	65		5583	5829	6099	calib 8.10 Marine20; 70±65		33283
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Column Sample #3-1	30	45	Shell-m, Tivella	UCLA-2560C	4310	70		4384	4675	4966	calib 8.10 Marine20; 70±65		33284
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Column Sample #3-1	45	60	Shell-m, Tivella	UCLA-2560D	5530	70		5828	6083	6335	calib 8.10 Marine20; 70±65		33285
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Column Sample #3-1	60	75	Shell-m, Tivella	UCLA-2560E	3530	50		3397	3658	3917	calib 8.10 Marine20; 70±65		33286
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Column Sample #3-1	75	90	Shell-m, Tivella	UCLA-2560F	2470	45		2122	2377	2662	calib 8.10 Marine20; 70±65		33287
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Column Sample #3-1	90	105	Shell-m, Tivella	UCLA-2560G	6880	80		7271	7510	7743	calib 8.10 Marine20; 70±65		33288
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Column Sample #3-1	105	120	Shell-m, Tivella	UCLA-2560H	7160	80		7540	7775	8015	calib 8.10 Marine20; 70±65		33289
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Column Sample #3-1	120	130	Shell-m, Tivella	UCLA-2560I	7635	30		8030	8261	8452	calib 8.10 Marine20; 70±65		33290
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Column Sample #1	0	15	Shell-m, Tivella	UCLA-2563A	3725	60		3625	3913	4213	calib 8.10 Marine20; 70±65		33291
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Column Sample #1	15	30	Shell-m, Tivella	UCLA-2563B	2335	55		1923	2196	2469	calib 8.10 Marine20; 70±65		33292

Appendix D-2: Archaeological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Column Sample #1	30	45	Shell-m, Tivella	UCLA-2563C	4920	65		5148	5426	5676	calib 8.10 Marine20; 70±65		33293
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Column Sample #1	45	60	Shell-m, Tivella	UCLA-2563D	5275	80		5549	5803	6102	calib 8.10 Marine20; 70±65		33294
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Column Sample #1	60	75	Shell-m, Tivella	UCLA-2563E	3900	70		3834	4145	4435	calib 8.10 Marine20; 70±65		33295
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Column Sample #2	0	15	Shell-m, Tivella	UCLA-2564A	3570	55		3438	3709	3980	calib 8.10 Marine20; 70±65		33296
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Column Sample #2	15	30	Shell-m, Tivella	UCLA-2564B	3325	65		3134	3408	3689	calib 8.10 Marine20; 70±65		33297
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Column Sample #2	30	45	Shell-m, Tivella	UCLA-2564C	3745	60		3644	3939	4232	calib 8.10 Marine20; 70±65		33298
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Column Sample #2	45	60	Shell-m, Tivella	UCLA-2564D	5470	80		5743	6023	6279	calib 8.10 Marine20; 70±65		33299
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Column Sample #2	60	75	Shell-m, Tivella	UCLA-2564E	4845	75		5030	5345	5594	calib 8.10 Marine20; 70±65		33300
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Column Sample #2	75	85	Shell-m, Tivella	UCLA-2564F	5370	80		5631	5911	6188	calib 8.10 Marine20; 70±65		33301
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit TS	0	10	Shell-m, Tivella	UGA-6188	5167	93		5409	5693	5986	calib 8.10 Marine20; 70±65		33305
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit T6	10	20	Shell-m, Tivella	UGA-6189	3066	55		2830	3090	3352	calib 8.10 Marine20; 70±65		33306
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit TS	20	30	Shell-m, Tivella	UGA-6190	1906	101		1357	1672	1989	calib 8.10 Marine20; 70±65		33307
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit T6	30	40	Shell-m, Tivella	UGA-6191	3605	92		3429	3755	4091	calib 8.10 Marine20; 70±65		33308
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit T6	40	50	Shell-m, Tivella	UGA-6192	4881	87		5048	5382	5653	calib 8.10 Marine20; 70±65		33309
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit T6	50	60	Shell-m, Tivella	UGA-6193	3211	63		2983	3267	3535	calib 8.10 Marine20; 70±65		33310
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit TS	60	70	Shell-m, Tivella	UGA-6194	7149	141		7441	7768	8109	calib 8.10 Marine20; 70±65		33311
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit T6	70	80	Shell-m, Tivella	UGA-6195	5140	79		5394	5665	5928	calib 8.10 Marine20; 70±65		33312
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit T6	80	90	Shell-m, Tivella	UGA-6196	6910	79		7304	7537	7778	calib 8.10 Marine20; 70±65		33313
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit T6	90	100	Shell-m, Tivella	UGA-6197	5768	109		6009	6340	6651	calib 8.10 Marine20; 70±65		33314
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit T6	100	110	Shell-m, Tivella	UGA-6198	5476	101		5711	6028	6307	calib 8.10 Marine20; 70±65		33315
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit T6	110	120	Shell-m, Tivella	UGA-6199	7304	108		7619	7919	8212	calib 8.10 Marine20; 70±65		33316
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit T6	120	130	Shell-m, Tivella	UGA-6200	6740	62		7160	7382	7583	calib 8.10 Marine20; 70±65		33317
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit T6	130	140	Shell-m, Tivella	UGA-6201	6800	98		7167	7437	7680	calib 8.10 Marine20; 70±65		33318
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit TS	140	150	Shell-m, Tivella	UGA-6202	6731	105		7091	7372	7642	calib 8.10 Marine20; 70±65		33319
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit 8, Quad SW, Feature 1	64	64	Shell-m, Tivella	UGA-6203	6970	118		7317	7597	7899	calib 8.10 Marine20; 70±65		33320
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit D8, Quad SW	50	60	Shell-m, Tivella	UGA-6204	4725	408		4142	5157	6118	calib 8.10 Marine20; 70±65		33321
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit 8, Quad SW, Feature 1	64	64	Shell-m, Tivella	UGA-6205	5988	71		6305	6572	6837	calib 8.10 Marine20; 70±65		33322
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit 8, Quad SW	50	60	Shell-m, Tivella	UGA-6206	6938	101		7304	7565	7837	calib 8.10 Marine20; 70±65		33323
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit 8, Quad SW	60	70	Shell-m, Tivella	UGA-6207	6995	108		7357	7620	7910	calib 8.10 Marine20; 70±65		33324
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit 8, Feature 1			Shell-m, Tivella	UGA-6301	7086	108		7430	7707	7972	calib 8.10 Marine20; 70±65		33325
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit DB, Feature 1			Shell-m, Tivella	UGA-6302	7005	105		7373	7629	7915	calib 8.10 Marine20; 70±65		33326
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit KI, A2p (IIa) soil and (facies)			Shell-m, Tivella	UGA-6344	1905	77		1386	1669	1950	calib 8.10 Marine20; 70±65		33327
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit KI, A1p (IIb) soil and (facies)			Shell-m, Tivella	UGA-6345	1098	72		606	823	1067	calib 8.10 Marine20; 70±65		33328
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit K1, A2p (IIIa) soil and (facies)			Shell-m, Tivella	UGA-6346	5512	56		5828	6066	6298	calib 8.10 Marine20; 70±65		33329

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County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit K1, A2p (IIlb) soil and (facies)			Shell-m, Tivella	UGA-6347	6215	80		6555	6832	7138	calib 8.10 Marine20; 70±65		33330
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit K1, E (IV) soil and (facies)			Shell-m, Tivella	UGA-6348	6725	102		7085	7366	7629	calib 8.10 Marine20; 70±65		33331
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit T6, EA (III-IV) soil and (facies)	60	80	Shell-m, Tivella	UGA-6349	6608	81		6984	7257	7496	calib 8.10 Marine20; 70±65		33332
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit T6, E (IVa) soil and (facies)	80	105	Shell-m, Tivella	UGA-6350	6853	80		7249	7486	7716	calib 8.10 Marine20; 70±65		33333
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit T6, A2p (IV) soil and (facies)	5	25	Shell-m, Tivella	UGA-6351	4262	73		4303	4619	4893	calib 8.10 Marine20; 70±65		33334
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit K1, A2p (IIla) soil and (facies)	45	65	Shell-m, Tivella	UGA-6401	2414	73		1996	2298	2620	calib 8.10 Marine20; 70±65		33335
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit K1, A2p (IIa) soil and (facies)	60	75	Shell-m, Tivella	UGA-6402	2895	88		2596	2890	3218	calib 8.10 Marine20; 70±65		33336
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit K1, A2p (IIb) soil and (facies)	50	60	Shell-m, Tivella	UGA-6403	2755	95		2364	2716	3027	calib 8.10 Marine20; 70±65		33337
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit K1, A2p (IIlb) soil and (facies)	65	90	Shell-m, Tivella	UGA-6405	6723	43		7167	7367	7558	calib 8.10 Marine20; 70±65		33338
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit T6, A2p (III-V) soil and (facies)	65	75	Shell-m, Tivella	UGA-6406	2814	80		2478	2793	3100	calib 8.10 Marine20; 70±65		33339
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit T6, A2p (IV) soil and (facies)	10	20	Shell-m, Tivella	UGA-6407	5160	105		5368	5686	5987	calib 8.10 Marine20; 70±65		33340
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit S5, A (III) soil and (facies)	70	90	Shell-m, Tivella	UGA-6408	6357	96		6680	6992	7273	calib 8.10 Marine20; 70±65		33341
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit S5, A (III) soil and (facies)	65	85	Shell-m, Tivella	UGA-6409	5735	78		6013	6304	6570	calib 8.10 Marine20; 70±65		33342
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit S5, A2p (IV-III) soil and (facies)	20	45	Shell-m, Tivella	UGA-6410	2607	87		2235	2537	2833	calib 8.10 Marine20; 70±65		33343
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit SS, A2p (IV-III) soil and (facies)	15	30	Shell-m, Tivella	UGA-6411	3239	100		2953	3299	3631	calib 8.10 Marine20; 70±65		33344
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit J, A1p (III) soil and (facies)			Shell-m, Tivella	UGA-6527	1706	77		1202	1448	1713	calib 8.10 Marine20; 70±65		33345
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit J, A1p (III) soil and (facies)			Shell-m, Tivella	UGA-6528	1810	103		1275	1563	1879	calib 8.10 Marine20; 70±65		33346
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit J, A2p (IIla) soil and (facies)			Shell-m, Tivella	UGA-6529	6203	75		6543	6819	7120	calib 8.10 Marine20; 70±65		33347
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit J, A2p (IIla) soil and (facies)			Shell-m, Tivella	UGA-6530	4626	55		4813	5079	5327	calib 8.10 Marine20; 70±65		33350
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit J, A2p (IIlb) soil and (facies)			Shell-m, Tivella	UGA-6531	6226	81		6564	6845	7145	calib 8.10 Marine20; 70±65		33351
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit J, A2p (IIlb) soil and (facies)			Shell-m, Tivella	UGA-6532	6008	86		6307	6595	6881	calib 8.10 Marine20; 70±65		33352
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit C1, Quad NE	150	160	Shell-m, Tivella	UGA-6533	6790	42		7233	7429	7619	calib 8.10 Marine20; 70±65		33353
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit C1, Quad SW	150	160	Shell-m, Tivella	UGA-6534	5995	75		6306	6580	6850	calib 8.10 Marine20; 70±65		33354
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit C1, Quad NE	200	210	Shell-m, Tivella	UGA-6535	6477	80		6846	7119	7386	calib 8.10 Marine20; 70±65		33355
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit C1, Quad NN	200	210	Shell-m, Tivella	UGA-6536	6132	88		6431	6737	7041	calib 8.10 Marine20; 70±65		33356
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit C1, Quad SW	200	210	Shell-m, Tivella	UGA-6537	6342	75		6703	6977	7245	calib 8.10 Marine20; 70±65		33357
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit C1, Quad NE	220	230	Shell-m, Tivella	UGA-6538	5578	56		5898	6132	6362	calib 8.10 Marine20; 70±65		33358
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit C1, Quad NN	220	230	Shell-m, Tivella	UGA-6539	6811	82		7206	7447	7678	calib 8.10 Marine20; 70±65		33359
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit C1, Quad NE	240	250	Shell-m, Tivella	UGA-6540	6418	86		6763	7057	7323	calib 8.10 Marine20; 70±65		33360
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit C1, Quad NN	240	250	Shell-m, Tivella	UGA-6541	5748	36		6095	6318	6552	calib 8.10 Marine20; 70±65		33361
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit C, Fissure	280	290	Shell-m, Tivella	UGA-6596	6635	57		7045	7285	7498	calib 8.10 Marine20; 70±65		33362
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit C1, Fissure	280	290	Shell-m, Tivella	UGA-6597	7096	43		7517	7714	7921	calib 8.10 Marine20; 70±65		33363
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit 5	50	60	Shell-m, Tivella	UGA-6598	4796	37		5026	5291	5533	calib 8.10 Marine20; 70±65		33364
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit 5	70	80	Shell-m, Tivella	UGA-6599	7621	44		8013	8247	8450	calib 8.10 Marine20; 70±65		33365

Appendix D-2: Archaeological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit 13, Quad SW	40	50	Shell-m, Tivella	UGA-6600	7326	42		7726	7941	8164	calib 8.10 Marine20; 70±65		33366
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit K2, Quad SW	60	70	Shell-m, Tivella	UGA-6601	3991	36		3992	4265	4516	calib 8.10 Marine20; 70±65		33368
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit K2, Quad SW	60	70	Shell-m, Tivella	UGA-6602	4126	63		4152	4445	4739	calib 8.10 Marine20; 70±65		33369
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit S5, Quad SW	60	70	Shell-m, Tivella	UGA-6603	5125	58		5417	5648	5899	calib 8.10 Marine20; 70±65		33370
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit T4, Quad SW	30	40	Shell-m, Tivella	UGA-6604	5063	61		5326	5579	5835	calib 8.10 Marine20; 70±65		33371
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit C, Quad SW	130	140	Shell-m, Tivella	UGA-6605A	7790	165		8026	8452	8934	calib 8.10 Marine20; 70±65		33372
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit CI, Quad SW	130	140	Shell-m, Tivella	UGA-6606A	7195	85		7557	7808	8060	calib 8.10 Marine20; 70±65		33373
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit G, Quad SE	110	120	Shell-m, Tivella	UGA-6607A	7405	155		7658	8028	8387	calib 8.10 Marine20; 70±65		33374
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit G, Quad SW	150	160	Shell-m, Tivella	UGA-6608A	8045	115		8386	8755	9124	calib 8.10 Marine20; 70±65		33375
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit 11, Quad NE	60	70	Shell-m, Tivella	UGA-6609A	7050	75		7448	7671	7912	calib 8.10 Marine20; 70±65		33376
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit 11, Quad NE	60	70	Shell-m, Tivella	UGA-6610A	7885	165		8124	8568	9035	calib 8.10 Marine20; 70±65		33377
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit 14, Quad SE	40	50	Shell-m, Tivella	UGA-6611A	7595	125		7901	8221	8563	calib 8.10 Marine20; 70±65		33378
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit D15, Quad NW	50	59	Shell-m, Tivella	UGA-6612A	4185	110		4137	4521	4859	calib 8.10 Marine20; 70±65		33379
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit 17, Quad NN	70	80	Shell-m, Tivella	UGA-6613A	7250	125		7560	7865	8185	calib 8.10 Marine20; 70±65		33380
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit 18, Quad NE	60	70	Shell-m, Tivella	UGA-6614A	7460	70		7847	8083	8330	calib 8.10 Marine20; 70±65		33381
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit T6, Quad SW	70	80	Shell-m, Tivella	UGA-6615A	7265	80		7634	7877	8145	calib 8.10 Marine20; 70±65		33382
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Unit T6, Quad SE	70	80	Shell-m, Tivella	UGA-6616A	7690	85		8030	8321	8589	calib 8.10 Marine20; 70±65		33383
ORA	CA-ORA-0083	403483	3730430	17	Terrace, coastal	Bolsa Chica, Cogstone	Feature 84/BC77			Shell-m, marine		7940	30		7965	8156	8346	calib 8.10 Marine20; 70±65	Mason, Roger D. 2016	29661
ORA	CA-ORA-0084	402838	3729461	2	Terrace, coastal	Bolsa Bay	SRS, Unit 2, Stratum 30	80	90	Shell-m, marine	Beta-017612	4250	90		4258	4603	4912	calib 8.10 Marine20; 70±65	Peterson, Mark L. 1988	32511
ORA	CA-ORA-0084	402838	3729461	2	Terrace, coastal	Bolsa Bay	SRS, Unit 2, Stratum 30	90	100	Shell-m, marine	Beta-017613	4200	80		4227	4542	4836	calib 8.10 Marine20; 70±65	Peterson, Mark L. 1988	32512
ORA	CA-ORA-0084	402838	3729461	2	Terrace, coastal	Bolsa Bay	SRS, Unit 7, Stratum 17/20	30	40	Shell-m, marine	Beta-017614	4330	90		4372	4698	5036	calib 8.10 Marine20; 70±65	Peterson, Mark L. 1988	32513
ORA	CA-ORA-0084	402838	3729461	2	Terrace, coastal	Bolsa Bay	SRS, Unit 7, Stratum 17/20	40	50	Shell-m, marine	Beta-017615	4630	80		4799	5083	5392	calib 8.10 Marine20; 70±65	Peterson, Mark L. 1988	32514
ORA	CA-ORA-0084	402838	3729461	2	Terrace, coastal	Bolsa Bay	SRS, Unit 7, Stratum 20	50	60	Shell-m, marine	Beta-017616	4420	80		4499	4817	5171	calib 8.10 Marine20; 70±65	Peterson, Mark L. 1988	32515
ORA	CA-ORA-0085	403632	3730487	13	Terrace, Coastal	Marine View Park	K-34: 15-30 cm	15	30	Shell-m, Pecten c.	UCLA-1409A	3650	100		2967	3305	3627	calib 8.10 Marine20; 70±65	Ericson, J. E. 1972, Schroth, A. 1979	6602
ORA	CA-ORA-0085	403632	3730487	13	Terrace, Coastal	Marine View Park	K-34: 30-46 cm	30	46	Shell-m, Chione undatella	UCLA-1409B	4180	70		3683	3977	4279	calib 8.10 Marine20; 70±65	Ericson, J. E. 1972, Schroth, A. 1979	6601
ORA	CA-ORA-0099	417534	3720425	22	Terrace, Coastal	Harbor View	K-2: 20-40 cm	20	40	Shell-m, Chione	UCR-0426	4010	215		3201	3763	4374	calib 8.10 Marine20; 70±65	Schroth, A. 1979	6593
ORA	CA-ORA-0099	417534	3720425	22	Terrace, Coastal	Harbor View	Upper 4: 0-20 cm	0	20	Shell-m, Chione	UCR-0428	1725	150		690	1047	1374	calib 8.10 Marine20; 70±65	Schroth, A. 1979	6597
ORA	CA-ORA-0099	417534	3720425	22	Terrace, Coastal	Harbor View	Lower 4: 0-60 cm	40	60	Shell-m, Chione	UCR-0429	1850	160		785	1172	1546	calib 8.10 Marine20; 70±65	Schroth, A. 1979	6596
ORA	CA-ORA-0099	417534	3720425	22	Terrace, Coastal	Harbor View	40-60 cm	40	60	Shell-m, marine assumed		2175	100		1250	1516	1820	calib 8.10 Marine20; 70±65	Schroth, A. 1983	6594
ORA	CA-ORA-0099	417534	3720425	22	Terrace, Coastal	Harbor View	0-20 cm	0	20	Shell-m, Chione		2050	160		992	1389	1789	calib 8.10 Marine20; 70±65	Schroth, A. 1983	6595
ORA	CA-ORA-0099	417534	3720425	22	Terrace, Coastal	Shark Island	N18.5W31.5: 80-90 cm	80	90	Shell-m, Chione	UCR-0517	3920	175		3162	3647	4148	calib 8.10 Marine20; 70±65	Schroth, A. 1979	6599
ORA	CA-ORA-0099	417534	3720425	22	Terrace, Coastal	Shark Island	N18.5W31.5: 80-90 cm	80	90	Shell-m, Chione	UCR-0518	6850	190		6621	7072	7493	calib 8.10 Marine20; 70±65	Schroth, A. 1979	6598
ORA	CA-ORA-0099	417534	3720425	22	Terrace, Coastal	Shark Island	N18.5W31.5: 30-40 cm	30	40	Shell-m, Chione	UCR-0519	3850	170		3087	3559	4055	calib 8.10 Marine20; 70±65	Schroth, A. 1979	6600
ORA	CA-ORA-0100	418123	3721027	34	Terrace, Coastal	Fashine Island	Bluff edge: 15 cm	15	15	Shell-m, Chione	UCR-0516	1430	100		516	757	1009	calib 8.10 Marine20; 70±65	Schroth, A. 1979	6592
ORA	CA-ORA-0106	421128	3721192	65	Terrace, coastal	Invine, Ford Rd.	Unit 87, Feature 6	30	40	Shell-m, Chione	Beta-063812	2210	80		1299	1553	1815	calib 8.10 Marine20; 70±65	Bonner, Wayne H. 1996	32575
ORA	CA-ORA-0106	421169	3726114	12	Floodplain	Invine, Ford Rd.		40	50	Shell-m, Chione	Beta-071785	1280	80		424	619	854	calib 8.10 Marine20; 70±65	Bonner, Wayne H. 1996	32588
ORA	CA-ORA-0106	421169	3726114	12	Floodplain	Invine, Ford Rd.	Unit 22, Feature 1	50	60	Shell-m, Chione	Beta-073786	1330	80		475	663	896	calib 8.10 Marine20; 70±65	Bonner, Wayne H. 1996	32595
ORA	CA-ORA-0106	421163	3725390	15	Terrace, coastal	Invine, Ford Rd.	Unit 60, Feature 2	20	30	Shell-m, Chione	Beta-073787	1030	70		187	405	616	calib 8.10 Marine20; 70±65	Bonner, Wayne H. 1996	32596
ORA	CA-ORA-0106	421272	3738580	60	Terrace, coastal	Invine, Ford Rd.	Unit 41, Feature 2	20	30	Shell-m, Chione	Beta-073788	2010	70		1103	1341	1580	calib 8.10 Marine20; 70±65	Bonner, Wayne H. 1996	32597
ORA	CA-ORA-0106	421163	3725390	15	Terrace, coastal	Invine, Ford Rd.	Unit 104, Feature 7	60	70	Shell-m, Pecten	Beta-073789	1190	60		341	547	718	calib 8.10 Marine20; 70±65	Bonner, Wayne H. 1996	32598
ORA	CA-ORA-0106	421128	3721192	65	Terrace, coastal	Invine, Ford Rd.	Unit 55, Feature 3	30	40	Shell-m, Chione	Beta-073791	2140	70		1254	1475	1721	calib 8.10 Marine20; 70±65	Bonner, Wayne H. 1996	32599
ORA	CA-ORA-0106	421112	3719208	141	Terrace, coastal	Invine, Ford Rd.	Unit 55, Feature 3	20	30	Shell-m, Chione	Beta-073790	2790	60		1981	2254	2540	calib 8.10 Marine20; 70±65	Bonner, Wayne H. 1996	32600
ORA	CA-ORA-0106	421112	3719208	141	Terrace, coastal	Invine, Ford Rd.	Unit 68, Feature 4	30	40	Shell-m, Chione	Beta-073792	2400	80		1502	1776	2069	calib 8.10 Marine20; 70±65	Bonner, Wayne H. 1996	32601
ORA	CA-ORA-0106	421112	3719208	141	Terrace, coastal	Invine, Ford Rd.	Unit 68, Feature 4	40	50	Shell-m, Chione	Beta-073793	2530	80		1657	1935	2252	calib 8.10 Marine20; 70±65	Bonner, Wayne H. 1996	32602
ORA	CA-ORA-0106	421112	3719208	141	Terrace, coastal	Invine, Ford Rd.	Unit 68, Feature 4	50	60	Shell-m, Pecten	Beta-073794	2390	60		1514	1763	2015	calib 8.10 Marine20; 70±65	Bonner, Wayne H. 1996	32603
ORA	CA-ORA-0106	421129	3721284	64	Terrace, coastal	Invine, Ford Rd.	Unit 82, Feature 5	20	30	Shell-m, Chione	Beta-073795	1840	70		928	1162	1372	calib 8.10 Marine20; 70±65	Bonner, Wayne H. 1996	32604
ORA	CA-ORA-0106	421112	3719208	141	Terrace, coastal	Invine, Ford Rd.	Unit 93, Feature 5	20	30	Shell-m, Pecten	Beta-073796	2420	60		1542	1799	2050	calib 8.10 Marine20; 70±65	Bonner, Wayne H. 1996	32605

Appendix D-2: Archaeological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
ORA	CA-ORA-0106	421163	3725390	15	Terrace, coastal	Irvine, Ford Rd.	Unit 87, Feature 6	20	30	Shell-m, Chione	Beta-073797	1110	70		276	477	660	calib 8.10 Marine20; 70±65	Bonner, Wayne H. 1996	32606
ORA	CA-ORA-0106	421173	3726555	12	Floodplain	Irvine, Ford Rd.	Unit 104, Feature 7	70	80	Shell-m, Chione	Beta-073798	1810	70		907	1133	1346	calib 8.10 Marine20; 70±65	Bonner, Wayne H. 1996	32607
ORA	CA-ORA-0106	421170	3726240	11	Floodplain	Irvine, Ford Rd.		30	40	Charcoal	Beta-073799	820	80		575	745	916	calib 8.10 IntCal20	Bonner, Wayne H. 1996	32608
ORA	CA-ORA-0106	421173	3726555	12	Floodplain	Irvine, Ford Rd.	Unit 68, Feature 4	40	50	Charcoal	Beta-073800	1220	80		963	1139	1288	calib 8.10 IntCal20	Bonner, Wayne H. 1996	32609
ORA	CA-ORA-0106	421221	3732469	27	Terrace, coastal	Irvine, Ford Rd.	Unit 78, Feature 4	40	50	Charcoal	Beta-073801	1240	60		1000	1162	1290	calib 8.10 IntCal20	Bonner, Wayne H. 1996	32610
ORA	CA-ORA-0106	421272	3738580	60	Terrace, coastal	Irvine, Ford Rd.	Unit 78, Feature 4	50	60	Charcoal	Beta-073802	1510	70		1300	1397	1528	calib 8.10 IntCal20	Bonner, Wayne H. 1996	32611
ORA	CA-ORA-0106	421272	3738580	60	Terrace, coastal	Irvine, Ford Rd.	Unit 78, Feature 4	60	70	Charcoal	Beta-073803	1550	60		1311	1439	1537	calib 8.10 IntCal20	Bonner, Wayne H. 1996	32612
ORA	CA-ORA-0106	421129	3721284	64	Terrace, coastal	Irvine, Ford Rd.	Unit 79, Feature 4	10	20	Charcoal	Beta-073804	1290	70		1058	1208	1342	calib 8.10 IntCal20	Bonner, Wayne H. 1996	32613
ORA	CA-ORA-0106	421173	3726555	12	Floodplain	Irvine, Ford Rd.	Unit 79, Feature 4	40	50	Charcoal	Beta-073805	1170	70		934	1089	1270	calib 8.10 IntCal20	Bonner, Wayne H. 1996	32614
ORA	CA-ORA-0106	421170	3726240	11	Floodplain	Irvine, Ford Rd.	Unit 87, Feature 7	70	80	Charcoal	Beta-073806	880	70		683	792	918	calib 8.10 IntCal20	Bonner, Wayne H. 1996	32615
ORA	CA-ORA-0106	421129	3721284	64	Terrace, coastal	Irvine, Ford Rd.	Unit 93, Feature 5	10	20	Charcoal	Beta-073807	1310	80		1011	1217	1355	calib 8.10 IntCal20	Bonner, Wayne H. 1996	32616
ORA	CA-ORA-0106	421129	3721284	64	Terrace, coastal	Irvine, Ford Rd.	Unit 93, Feature 5	20	30	Charcoal	Beta-073808	1420	60		1177	1327	1410	calib 8.10 IntCal20	Bonner, Wayne H. 1996	32617
ORA	CA-ORA-0106	421163	3725390	15	Terrace, coastal	Irvine, Ford Rd.	Unit 104, Feature 6	20	30	Charcoal	Beta-073809	550	60		502	569	651	calib 8.10 IntCal20	Bonner, Wayne H. 1996	32618
ORA	CA-ORA-0106	421169	3726114	12	Terrace, coastal	Irvine, Ford Rd.	Unit 104, Feature 6	30	40	Charcoal	Beta-073810	560	80		480	579	672	calib 8.10 IntCal20	Bonner, Wayne H. 1996	32619
ORA	CA-ORA-0106	421163	3725390	15	Terrace, coastal	Irvine, Ford Rd.	Unit 104, Feature 7	40	50	Charcoal	Beta-073811	480	60		328	516	640	calib 8.10 IntCal20	Bonner, Wayne H. 1996	32620
ORA	CA-ORA-0106	421112	3719208	141	Terrace, coastal	Irvine, Ford Rd.	Unit 82, Feature 5	10	20	Shell-m, Pecten	Beta-073813	2320	60		1424	1678	1926	calib 8.10 Marine20; 70±65	Bonner, Wayne H. 1996	32621
ORA	CA-ORA-0111	422855	3725155	21	Terrace, Coastal	University	S26.5/E15: 10-20 cm	10	20	Shell-m, Chione	UCR-0427	1040	150		59	406	688	calib 8.10 Marine20; 70±65	Schroth, A. 1979	6591
ORA	CA-ORA-0116	420485	3724242	15	Hill, ridge	Newport, USDA Lab	Mucko Unit 20, surface	0	1	Shell-m, Chione spp.	Beta-032605	2620	80		1761	2047	2326	calib 8.10 Marine20; 70±65	Grenda, Donn R. 1998	32190
ORA	CA-ORA-0116	420485	3724242	15	Hill, ridge	Newport, USDA Lab	Hurd Unit S2E1, Level 4	30	40	Shell-m, Chione spp.	Beta-032606	2290	80		1372	1644	1919	calib 8.10 Marine20; 70±65	Grenda, Donn R. 1998	32189
ORA	CA-ORA-0116	420485	3724242	15	Hill, ridge	Newport, USDA Lab	Area B, Unit 22, Level 7	60	70	Shell-m, Chione spp.	Beta-104367	2260	70		1355	1609	1865	calib 8.10 Marine20; 70±65	Grenda, Donn R. 1998	32188
ORA	CA-ORA-0116	420485	3724242	15	Hill, ridge	Newport, USDA Lab	Area C, Unit 28, Level 7	60	70	Shell-m, Chione spp.	Beta-104368	2640	80		1778	2072	2343	calib 8.10 Marine20; 70±65	Grenda, Donn R. 1998	32187
ORA	CA-ORA-0116	420485	3724242	15	Hill, ridge	Newport, USDA Lab	Area C, Unit 25, Level 8	70	80	Shell-m, Chione spp.	Beta-104369	5100	220		4560	5144	5678	calib 8.10 Marine20; 70±65	Grenda, Donn R. 1998	32186
ORA	CA-ORA-0116	420485	3724242	15	Hill, ridge	Newport, USDA Lab	Area B, Unit 24, Level 6, F 1	50	60	Shell-m, Chione spp.	Beta-104370	2620	60		1797	2047	2308	calib 8.10 Marine20; 70±65	Grenda, Donn R. 1998	32185
ORA	CA-ORA-0116	420485	3724242	15	Hill, ridge	Newport, USDA Lab	Area B, Unit 23, Level 10	90	100	Shell-m, Chione spp.	Beta-104371	2070	50		1192	1402	1616	calib 8.10 Marine20; 70±65	Grenda, Donn R. 1998	32184
ORA	CA-ORA-0116	420485	3724242	15	Hill, ridge	Newport, USDA Lab	Area A, Unit 34, Level 5	40	50	Shell-m, Chione spp.	Beta-104372	2380	80		1474	1752	2041	calib 8.10 Marine20; 70±65	Grenda, Donn R. 1998	32183
ORA	CA-ORA-0116	420485	3724242	15	Hill, ridge	Newport, USDA Lab	Area A, Unit 34, Level 4	30	40	Shell-m, Astraea undosa	Beta-116333	2030	70		1127	1362	1603	calib 8.10 Marine20; 70±65	Grenda, Donn R. 1998	32182
ORA	CA-ORA-0116	420485	3724242	15	Hill, ridge	Newport, USDA Lab	Area D, Unit 71, Level 4	30	40	Shell-m, Astraea undosa	Beta-116334	2340	70		1440	1703	1972	calib 8.10 Marine20; 70±65	Grenda, Donn R. 1998	32181
ORA	CA-ORA-0116	420485	3724242	15	Hill, ridge	Newport, USDA Lab	Area B, Unit 35, Level 5	40	50	Shell-m, Chione spp.	Beta-116335	1920	60		1017	1243	1470	calib 8.10 Marine20; 70±65	Grenda, Donn R. 1998	32180
ORA	CA-ORA-0116	420485	3724242	15	Hill, ridge	Newport, USDA Lab	Area B, Unit 45, Level 3, F 6	20	30	Shell-m, Chione spp.	Beta-116336	2240	60		1347	1586	1824	calib 8.10 Marine20; 70±65	Grenda, Donn R. 1998	32179
ORA	CA-ORA-0116	420485	3724242	15	Hill, ridge	Newport, USDA Lab	Area A, Unit 4, Level 3	20	30	Shell-m, Chione spp.	Beta-116337	2300	60		1403	1654	1901	calib 8.10 Marine20; 70±65	Grenda, Donn R. 1998	32178
ORA	CA-ORA-0116	420485	3724242	15	Hill, ridge	Newport, USDA Lab	Area A, Unit 4, Level 8	70	80	Shell-m, Chione spp.	Beta-116338	2140	60		1268	1473	1706	calib 8.10 Marine20; 70±65	Grenda, Donn R. 1998	32177
ORA	CA-ORA-0116	420485	3724242	15	Hill, ridge	Newport, USDA Lab	Area E, Unit 68, Level 4	30	40	Shell-m, Chione spp.	Beta-116339	2130	60		1261	1463	1699	calib 8.10 Marine20; 70±65	Grenda, Donn R. 1998	32176
ORA	CA-ORA-0116	420485	3724242	15	Hill, ridge	Newport, USDA Lab	Area D, Unit 71, Level 4	30	40	Shell-m, Argopecten spp.	Beta-116340	2450	70		1567	1836	2108	calib 8.10 Marine20; 70±65	Grenda, Donn R. 1998	32175
ORA	CA-ORA-0116	420485	3724242	15	Hill, ridge	Newport, USDA Lab	Area D, Unit 71, Level 5	40	50	Shell-m, Chione spp.	Beta-116341	2140	70		1254	1475	1721	calib 8.10 Marine20; 70±65	Grenda, Donn R. 1998	32174
ORA	CA-ORA-0116	420485	3724242	15	Hill, ridge	Newport, USDA Lab	Area C, Unit 30, Level 2	10	20	Shell-m, Chione spp.	Beta-116342	2060	70		1162	1393	1639	calib 8.10 Marine20; 70±65	Grenda, Donn R. 1998	32173
ORA	CA-ORA-0116	420485	3724242	15	Hill, ridge	Newport, USDA Lab	Area C, Unit 30, Level 4	30	40	Shell-m, Chione spp.	Beta-116343	2020	60		1128	1351	1576	calib 8.10 Marine20; 70±65	Grenda, Donn R. 1998	32172
ORA	CA-ORA-0116	420485	3724242	15	Hill, ridge	Newport, USDA Lab	Area F, Unit 78, Level 3	20	30	Shell-m, Chione spp.	Beta-116344	2330	70		1419	1691	1950	calib 8.10 Marine20; 70±65	Grenda, Donn R. 1998	32171
ORA	CA-ORA-0119	421896	3724306	21	Floodplain	San Joaquin Marsh	nr			Shell-m, marine assumed	UCLA-1667	3685	80		3053	3350	3639	calib 8.10 Marine20; 70±65	Craib, J. L. 1982	6566
ORA	CA-ORA-0119	421896	3724306	21	Floodplain	San Joaquin Marsh	1: 80 cm	80	80	Shell-m, Chione	UCR-0307	1750	165		684	1072	1432	calib 8.10 Marine20; 70±65	Aikens, C. M. 1978	6574
ORA	CA-ORA-0119	421896	3724306	21	Floodplain	San Joaquin Marsh	O-15: 40-60 cm	40	60	Shell-m, Chione	UCR-0308	2065	150		1037	1405	1796	calib 8.10 Marine20; 70±65	Schroth, A. 1979	6569
ORA	CA-ORA-0119	421896	3724306	21	Floodplain	San Joaquin Marsh	O-15: 60-80 cm	60	80	Shell-m, Chione	UCR-0309	1870	160		804	1192	1573	calib 8.10 Marine20; 70±65	Schroth, A. 1979	6571
ORA	CA-ORA-0119	421896	3724306	21	Floodplain	San Joaquin Marsh	O-15: 0-20 cm	0	20	Shell-m, Chione	UCR-0310	1665	160		641	988	1337	calib 8.10 Marine20; 70±65	Schroth, A. 1979	6576
ORA	CA-ORA-0119	421896	3724306	21	Floodplain	San Joaquin Marsh	O-15: 20-40 cm	20	40	Shell-m, Chione	UCR-0311	1555	150		560	879	1224	calib 8.10 Marine20; 70±65	Schroth, A. 1979	6580
ORA	CA-ORA-0119	421896	3724306	21	Floodplain	San Joaquin Marsh	53-80 cm	53	80	Bone, collagen	UCR-0316	390	140		1	401	650	calib 8.10 IntCal20	Koepfer, H. C. 1977	6587
ORA	CA-ORA-0119	421896	3724306	21	Floodplain	San Joaquin Marsh	N43.5/W50: 10-20 cm	10	20	Shell-m, Chione c.	UCR-0423	1400	150		433	737	1079	calib 8.10 Marine20; 70±65	Schroth, A. 1979	6583
ORA	CA-ORA-0119	421896	3724306	21	Floodplain	San Joaquin Marsh	S1.5/E43.5: 20-30 cm	20	30	Shell-m, Chione f.	UCR-0424	1645	140		655	968	1284	calib 8.10 Marine20; 70±65	Schroth, A. 1979	6578
ORA	CA-ORA-0119	421896	3724306	21	Floodplain	San Joaquin Marsh	S31.5/E88.5: 40-50 cm	40	50	Shell-m, Chione f.	UCR-0425	890	140		1	279	514	calib 8.10 Marine20; 70±65	Schroth, A. 1979	6589
ORA	CA-ORA-0119	421896	3724306	21	Floodplain	San Joaquin Marsh	Z-26: 0-20 cm	0	20	Shell-m, Chione	UCR-0750	1420	100		508	748	998	calib 8.10 Marine20; 70±65	Koepfer, H. C. 1981, UCR 1986	6582
ORA	CA-ORA-0119	421896	3724306	21	Floodplain	San Joaquin Marsh	Z-26: 20-40 cm	20	40	Shell-m, Chione	UCR-0751	1935	100		972	1260	1532	calib 8.10 Marine20; 70±65	UCR 1986	6570
ORA	CA-ORA-0119	421896	3724306	21	Floodplain	San Joaquin Marsh	Z-26: 40-60 cm	40	60	Shell-m, Chione	UCR-0752	1700	130		700	1022	1314	calib 8.10 Marine20; 70±65	UCR 1986, Koepfer, H. C. 1986	6575
ORA	CA-ORA-0119	421896	3724306	21	Floodplain	San Joaquin Marsh	Z-26: 60-80 cm	60	80	Shell-m, Chione	UCR-0753	1775	100		815	1097	1351	calib 8.10 Marine20; 70±65	UCR 1986	6573
ORA	CA-ORA-0119	421896	3724306	21	Floodplain	San Joaquin Marsh	FF: 60-80 cm	60	80	Bone, collagen	UCR-0754	225	130		1	242	474	calib 8.10 IntCal20	Koepfer, H. C. 1981, UCR 1986	6590
ORA	CA-ORA-0119	421896	3724306	21	Floodplain	San Joaquin Marsh	N0/E30: 40-50 cm	40	50	Shell-m, Pecten	UCR-0771	1450	100		535	776	1035	calib 8.10 Marine20; 70±65	UCR 1981	6581
ORA	CA-ORA-0119	421896	3724306	21	Floodplain	San Joaquin Marsh	S10/E40: 0-10 cm	0	10	Shell-m, Chione	UCR-0978	2195	100		1266	1538	1838	calib 8.10 Marine20; 70±65	UCR 1986	6568
ORA	CA-ORA-0119	421896	3724306	21	Floodplain	San Joaquin Marsh	S10/E40: 20-40 cm	20	40	Shell-m, Chione	UCR-0979	1775	100		815	1097	1351	calib 8.10 Marine20; 70±65	UCR 1986	6572
ORA	CA-ORA-0119	421896	3724306	21	Floodplain	San Joaquin Marsh	OO: 0-10 cm	0	10	Shell-m, Chione f.	UCR-0980	1650	100		708	972	1244	calib 8.10 Marine20; 70±65	Koepfer, H. C. 1981, UCR 1986	6577
ORA	CA-ORA-0119	421896	3724306	21	Floodplain	San Joaquin Marsh	N50/E50													

Appendix D-2: Archaeological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
ORA	CA-ORA-0119	421896	3724306	21	Floodplain	San Joaquin Marsh	N0/W20: 100-170 cm	100	170	Shell-m, Chione f.	UCR-1159	1257	79		395	600	827	calib 8.10 Marine20; 70±65	UCR 1986	6585
ORA	CA-ORA-0119	421896	3724306	21	Floodplain	San Joaquin Marsh	N4/E44: 30-40 cm	30	40	Shell-m, Chione	UCR-11607	1610	83		681	929	1173	calib 8.10 Marine20; 70±65	UCR 1986	6579
ORA	CA-ORA-0121	421288	3724138	4	Floodplain	Newport Bay	Unit-6	20	30	Shell-m, marine	Beta-033998	2250	80		1776	2093	2373	calib 8.10 Marine20; 70±65	Crownover, Scott 1990	32530
ORA	CA-ORA-0121	421288	3724138	4	Floodplain	Newport Bay	Unit-6	40	50	Shell-m, marine	Beta-033999	2910	60		2675	2904	3184	calib 8.10 Marine20; 70±65	Crownover, Scott 1990	32531
ORA	CA-ORA-0121	421284	3723581	24	Terrace, coastal	Newport Bay	Unit-13	20	30	Shell-m, marine	Beta-034000	1860	70		1352	1617	1883	calib 8.10 Marine20; 70±65	Crownover, Scott 1990	32532
ORA	CA-ORA-0121	421288	3724138	4	Floodplain	Newport Bay	Unit-13	40	50	Shell-m, marine	Beta-034001	1990	80		1487	1772	2078	calib 8.10 Marine20; 70±65	Crownover, Scott 1990	32533
ORA	CA-ORA-0121	421288	3724138	4	Floodplain	Newport Bay	Unit-14	20	30	Shell-m, marine	Beta-034002	2080	80		1574	1882	2181	calib 8.10 Marine20; 70±65	Crownover, Scott 1990	32534
ORA	CA-ORA-0121	421288	3724138	4	Floodplain	Newport Bay	Unit-14	40	50	Shell-m, marine	Beta-034003	2500	70		2132	2416	2701	calib 8.10 Marine20; 70±65	Crownover, Scott 1990	32535
ORA	CA-ORA-0121	421288	3724138	4	Floodplain	Newport Bay	Locus C, Unit 3	40	50	Shell-m, Mytilus	Beta-120524	6940	50	1	6960	7184	7401	calib 8.10 Marine20; 70±65	Strudwick, Ivan H. 1999	32744
ORA	CA-ORA-0121	421298	3725373	3	Floodplain	Newport Bay	Locus C, Unit 3	60	70	Shell-m, Chione u.	Beta-120525	6980	160	0	6818	7211	7565	calib 8.10 Marine20; 70±65	Strudwick, Ivan H. 1999	32745
ORA	CA-ORA-0124/0134	421556	3722438	56	Hill, ridge	Irvine, Bonita Mesa	Unit 25	30	40	Shell-m, Chione	Beta-054938	800	50	-0.4	1	188	376	calib 8.10 Marine20; 70±65	Rosenthal, Jane 1992	32549
ORA	CA-ORA-0124/0134	421556	3722438	56	Hill, ridge	Irvine, Bonita Mesa	Unit 25	60	70	Shell-m, Chione	Beta-054939	1280	50	1.2	447	616	799	calib 8.10 Marine20; 70±65	Rosenthal, Jane 1992	32550
ORA	CA-ORA-0124/0134	421556	3722438	56	Hill, ridge	Irvine, Bonita Mesa	Unit 33	40	50	Charcoal, wood	Beta-054940	2670	130	-22.7	2364	2783	3073	calib 8.10 IntCal20	Rosenthal, Jane 1992	32551
ORA	CA-ORA-0124/0134	421556	3722438	56	Hill, ridge	Irvine, Bonita Mesa	Unit 31	30	40	Shell-m, Chione	Beta-054941	1640	70	0.5	720	961	1193	calib 8.10 Marine20; 70±65	Rosenthal, Jane 1992	32552
ORA	CA-ORA-0124/0134	421556	3722438	56	Hill, ridge	Irvine, Bonita Mesa	Unit 31	50	60	Shell-m, Chione	Beta-054942	1970	60	1.2	1073	1298	1519	calib 8.10 Marine20; 70±65	Rosenthal, Jane 1992	32553
ORA	CA-ORA-0124/0134	421556	3722438	56	Hill, ridge	Irvine, Bonita Mesa	Unit 31	40	50	Shell-m, Chione	Beta-054943	1910	60	1.8	1001	1233	1453	calib 8.10 Marine20; 70±65	Rosenthal, Jane 1992	32554
ORA	CA-ORA-0130	420519	3716255	26	Dune, coastal	Crystal Cove	11: 10-20 cm	10	20	Shell-m, Pecten and Chione	UCR-1594	850	95		1	239	446	calib 8.10 Marine20; 70±65	Barter, E. R. 1987	6556
ORA	CA-ORA-0130	420519	3716255	26	Dune, coastal	Crystal Cove	10: 10-20 cm	10	20	Shell-m, Pecten and Chione	UCR-1595	1100	90		237	466	681	calib 8.10 Marine20; 70±65	Barter, E. R. 1987	6555
ORA	CA-ORA-0130	420519	3716255	26	Dune, coastal	Crystal Cove	10: 80-90 cm	80	90	Shell-m, Pecten and Chione	UCR-1596	3845	130		3170	3551	3948	calib 8.10 Marine20; 70±65	Barter, E. R. 1987	6554
ORA	CA-ORA-0130	420519	3716255	26	Dune, coastal	Crystal Cove	1976-77 student excavations; Stratum 2			Shell-m, marine		1200	70		335	555	736	calib 8.10 Marine20; 70±65	Barter, Eloise Richards 1987	33176
ORA	CA-ORA-0130	420519	3716255	26	Dune, coastal	Crystal Cove	1976-77 student excavations; Stratum 4			Shell-m, marine		4670	90		4290	4619	4922	calib 8.10 Marine20; 70±65	Barter, Eloise Richards 1987	33177
ORA	CA-ORA-0130	420519	3716255	26	Dune, coastal	Crystal Cove	1976-77 student excavations; Stratum 3			Shell-m, marine		4720	130		4261	4678	5087	calib 8.10 Marine20; 70±65	Barter, Eloise Richards 1987	33178
ORA	CA-ORA-0149	407704	3724459	8	Dune, coastal	Huntington Beach, PCH	Locus A, Unit 1	30	40	Shell-m, Chione	Beta-157253	1500	60	-2.5	628	817	1040	calib 8.10 Marine20; 70±65	Barros, Philip 2002	32832
ORA	CA-ORA-0149	407704	3724459	8	Dune, coastal	Huntington Beach, PCH	Locus A, Unit 1, Stratum A	40	50	Shell-m, Chione	Beta-157254	1780	60	-1.5	892	1104	1306	calib 8.10 Marine20; 70±65	Barros, Philip 2002	32833
ORA	CA-ORA-0149	407704	3724459	8	Dune, coastal	Huntington Beach, PCH	Locus A, Unit 1, Stratum A	40	50	Shell-m, Tivela	Beta-157255	1910	50	1.5	1010	1233	1438	calib 8.10 Marine20; 70±65	Barros, Philip 2002	32834
ORA	CA-ORA-0149	407704	3724459	8	Dune, coastal	Huntington Beach, PCH	Locus A, Unit 1, Stratum A	50	60	Shell-m, Chione	Beta-157256	1890	70	0	963	1212	1433	calib 8.10 Marine20; 70±65	Barros, Philip 2002	32835
ORA	CA-ORA-0149	407704	3724459	8	Dune, coastal	Huntington Beach, PCH	Locus B, Unit 4, Stratum A	20	30	Shell-m, Tivela	Beta-157257	1900	70	1.1	977	1222	1451	calib 8.10 Marine20; 70±65	Barros, Philip 2002	32836
ORA	CA-ORA-0149	407704	3724459	8	Dune, coastal	Huntington Beach, PCH	Locus B, Unit 4, Stratum B	30	40	Shell-m, Tivela	Beta-157258	3750	70	1.5	3158	3431	3703	calib 8.10 Marine20; 70±65	Barros, Philip 2002	32837
ORA	CA-ORA-0149	407704	3724459	8	Dune, coastal	Huntington Beach, PCH	Locus B, Unit 4, Stratum B	50	60	Shell-m, Tivela	Beta-157259	3770	60	1.6	3198	3455	3713	calib 8.10 Marine20; 70±65	Barros, Philip 2002	32838
ORA	CA-ORA-0149	407704	3724459	8	Dune, coastal	Huntington Beach, PCH	Locus B, Unit 4, Stratum B	70	80	Shell-m, Chione	Beta-157260	4620	80	-0.4	4252	4559	4837	calib 8.10 Marine20; 70±65	Barros, Philip 2002	32839
ORA	CA-ORA-0149	407704	3724459	8	Dune, coastal	Huntington Beach, PCH	Locus B, Unit 4, Stratum C (intrusive/reversed)	90	100	Shell-m, Tivela (intrusive)	Beta-157261	2040	70	1	1137	1372	1614	calib 8.10 Marine20; 70±65	Barros, Philip 2002	32840
ORA	CA-ORA-0149	407704	3724459	8	Dune, coastal	Huntington Beach, PCH	Locus B, Unit 4, Stratum C (intrusive/reversed)	90	100	Shell-m, Polinices	Beta-159980	4260	70	0.5	3807	4083	4392	calib 8.10 Marine20; 70±65	Barros, Philip 2002	32844
ORA	CA-ORA-0166	417517	3723910	23		San Diego Creek	1: 20-30 cm	20	30	Shell-m, Chione	UCLA-2145A	3000	80		2236	2524	2784	calib 8.10 Marine20; 70±65	Schroth, A. 1983	6551
ORA	CA-ORA-0166	417517	3723910	23		San Diego Creek	1: 70-80 cm	70	80	Shell-m, Chione	UCLA-2145E	2015	80		1093	1347	1602	calib 8.10 Marine20; 70±65	Schroth, A. 1983	6552
ORA	CA-ORA-0167/1117	419178	3722458	62	Hill, ridge	MacArthur Blvd.	Unit 2, 20-30 cm	20	30	Shell-m, Chione sp.	Beta-094579	1460	80		553	782	1009	calib 8.10 Marine20; 70±65	Strudwick, Ivan H. 1996	32707
ORA	CA-ORA-0170	417905	3722468	30	Terrace, coastal	Newport Bay Park	Unit 6	40	50	Shell-m, Chione	Beta-010168	1570	60		672	884	1106	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	32497
ORA	CA-ORA-0170	417905	3722468	30	Terrace, coastal	Newport Bay Park	Posthole N100/E130	20	40	Shell-m, Chione	Beta-078234	2230	70		1327	1575	1826	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	32697
ORA	CA-ORA-0170	417919	3724167	17	Terrace, coastal	Newport Bay Park	Posthole S20/E70	40	60	Shell-m, Chione	Beta-078235	2550	70		1699	1959	2256	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	32698
ORA	CA-ORA-0170	417905	3722468	30	Terrace, coastal	Newport Bay Park	Unit 4	60	70	Shell-m, Chione	Beta-078236	2350	70		1453	1715	1984	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	32699
ORA	CA-ORA-0170	417905	3722468	30	Terrace, coastal	Newport Bay Park	Feature 3	20	60	Charcoal	Beta-078237	1090	80		794	1007	1243	calib 8.10 IntCal20	Macko, Michael E. 1997	32700
ORA	CA-ORA-0170	417919	3724167	17	Terrace, coastal	Newport Bay Park	Unit 9	40	50	Shell-m, Chione	Beta-078238	2850	70		2065	2339	2654	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	32701
ORA	CA-ORA-0170	417919	3724167	17	Terrace, coastal	Newport Bay Park	Unit 4	60	70	Shell-m, Chione	Beta-078239	4120	70		3602	3897	4197	calib 8.10 Marine20; 70±65	Macko, Michael E. 1997	32702
ORA	CA-ORA-0170	417919	3724167	17	Terrace, coastal	Newport Bay Park	Unit 5, Feature I	60	70	Shell-m, Chione	Beta-078280	3970	70		3422	3700	3961	calib 8.10 Marine20; 70±65		32703
ORA	CA-ORA-0174	417868	3724770	20		Spiller Site	S10-11/E12.5: 50-60 cm	50	60	Shell-m, marine assumed	UCLA-2141A	1270	80		412	610	845	calib 8.10 Marine20; 70±65	Whitney, N. 1978	6550
ORA	CA-ORA-0174	417868	3724770	20		Spiller Site	S10-11/E12.5: 100-110 cm	100	110	Shell-m, marine assumed	UCLA-2141B	1515	80		614	832	1079	calib 8.10 Marine20; 70±65	Whitney, N. 1978	6549
ORA	CA-ORA-0174	417868	3724770	20		Spiller Site	S10-11/E12.5: 150-160 cm	150	160	Shell-m, marine assumed	UCLA-2141C	1725	80		801	1048	1280	calib 8.10 Marine20; 70±65	Whitney, N. 1978	6548
ORA	CA-ORA-0183	408510	3726525	16	Terrace, coastal	Newland House	14: 50-60 cm	50	60	Shell-m, Chione	Beta-002683	5280	60		5100	5379	5598	calib 8.10 Marine20; 70±65	Cottrell, M. G. 1981	6538
ORA	CA-ORA-0183	408510	3726525	16	Terrace, coastal	Newland House	Feature 7, Component D			Bone, collagen	Beta-002684	2380	90		2157	2456	2723	calib 8.10 IntCal20	Cottrell, M. G. 1981	6546
ORA	CA-ORA-0183	408510	3726525	16	Terrace, coastal	Newland House	14: 40-50 cm	40	50	Charcoal	Beta-002685	1580	220		1002	1493	1990	calib 8.10 IntCal20	Cottrell, M. G. 1981	6547
ORA	CA-ORA-0183	408510	3726525	16	Terrace, coastal	Newland House	Central pit: 82 cm	82	82	Shell-m, Chione	IVC-0053	4320	210		3589	4161	4763	calib 8.10 Marine20; 70±65	Cottrell, M. G. 1981	6542
ORA	CA-ORA-0183	408510	3726525	16	Terrace, coastal	Newland House	North pit: 82 cm	82	82	Shell-m, Chione	IVC-0068	2974	190		1963	2485	2985	calib 8.10 Marine20; 70±65	Cottrell, M. G. 1981	6545
ORA	CA-ORA-0183	408510	3726525	16	Terrace, coastal	Newland House	14: 50-60 cm	50	60	Shell-m, Chione	LJ-5003	5090	100	0.6	4830	5142	5453	calib 8.10 Marine20; 70±65	Cottrell, M. G. 1981	6539

Appendix D-2: Archaeological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
ORA	CA-ORA-0183	408510	3726525	16	Terrace, coastal	Newland House	15 Ext: 10-20 cm	10	20	Shell-m, Modiolus	UGA-03954	4370	95		3882	4228	4561	calib 8.10 Marine20; 70±65	Cottrell, M. G. 1981	6541
ORA	CA-ORA-0183	408510	3726525	16	Terrace, coastal	Newland House	15 Ext: 60-70 cm	60	70	Shell-m, Modiolus	UGA-03955	4083	85		3525	3848	4165	calib 8.10 Marine20; 70±65	Cottrell, M. G. 1981	6544
ORA	CA-ORA-0183	408510	3726525	16	Terrace, coastal	Newland House	15 Ext: 90-100 cm	90	100	Shell-m, Modiolus	UGA-03956	4174	85		3643	3969	4292	calib 8.10 Marine20; 70±65	Cottrell, M. G. 1981	6543
ORA	CA-ORA-0185	407276	3730382	10	Terrace, coastal	Huntington Beach	F-191: 30-40 cm	30	40	Shell-m, marine assumed	IVC-0001	2378	260		1161	1769	2422	calib 8.10 Marine20; 70±65	Cameron, C. 1980	6534
ORA	CA-ORA-0185	407276	3730382	10	Terrace, coastal	Huntington Beach	R-190: 40-50 cm	40	50	Shell-m, marine assumed	IVC-0003?	3055	276		1881	2579	3290	calib 8.10 Marine20; 70±65	Cameron, C. 1980	6533
ORA	CA-ORA-0185	407276	3730382	10	Terrace, coastal	Huntington Beach	F-191: 30-40 cm	30	40	Shell-m, marine assumed	UCR-0880	1825	100		870	1146	1412	calib 8.10 Marine20; 70±65	Cameron, C. 1980	6535
ORA	CA-ORA-0185	407276	3730382	10	Terrace, coastal	Huntington Beach	R-191: 60-70 cm	60	70	Shell-m, marine assumed	UCR-0881	1790	100		831	1112	1369	calib 8.10 Marine20; 70±65	Cameron, C. 1980	6536
ORA	CA-ORA-0190	420555	3718387	88	Hill, ridge	Spyglass Hill	Bulk, all units			Bone, fish	WSU-0861	850	250		1	283	638	calib 8.10 Marine20; 70±65	Ross, L. 1970, Schroth, A. 1983, Schroth, A. 1979, Ross, L. 1970	6532
ORA	CA-ORA-0190	420555	3718387	88	Hill, ridge	Spyglass Hill	Bulk, lowest level			Shell-m, Chione	WSU-0862	1545	350		217	894	1625	calib 8.10 Marine20; 70±65	Ross, L. 1970, Schroth, A. 1983, Schroth, A. 1979, Ross, L. 1970	6531
ORA	CA-ORA-0190	420555	3718387	88	Hill, ridge	Spyglass Hill	Fireplace feat: 18 cm	18	18	Charcoal	WSU-0863	970	375		1	923	1695	calib 8.10 IntCal20	Ross, L. 1970, Schroth, A. 1983, Schroth, A. 1979, Ross, L. 1970	6530
ORA	CA-ORA-0193	418423	3723874	2	Hill, ridge	Newport Bay	AB-Strat-VA: 24-48 cm	24	48	Charcoal	UCR-0892	860	100		573	785	957	calib 8.10 IntCal20	Lyneis 1981, UCR 1986	6529
ORA	CA-ORA-0193	418423	3723874	2	Hill, ridge	Newport Bay	AB-Strat-IX: 21-40 cm	21	40	Charcoal	UCR-0893	1005	100		696	906	1175	calib 8.10 IntCal20	Lyneis 1981, UCR 1986	6528
ORA	CA-ORA-0193	418423	3723874	2	Hill, ridge	Newport Bay	AB-Strat-XIII: 21-40 cm	21	40	Charcoal	UCR-0894	1095	100		789	1014	1266	calib 8.10 IntCal20	Lyneis 1981, UCR 1986	6527
ORA	CA-ORA-0193	418423	3723874	2	Hill, ridge	Newport Bay	AC-Strat-IX: 15-28 cm	15	28	Charcoal	UCR-0895	1330	100		978	1229	1403	calib 8.10 IntCal20	Lyneis 1981, UCR 1986	6526
ORA	CA-ORA-0195	421901	3726474	9	Terrace, coastal	Culver Storm Channel	D: 0-15 cm	0	15	Shell-m, Pecten	UCLA-1908A	1150	50		318	513	668	calib 8.10 Marine20; 70±65	Craib, J. L. 1982, Schroth, A. 1979	6525
ORA	CA-ORA-0195	421901	3726474	9	Terrace, coastal	Culver Storm Channel	D: 61-76 cm	61	76	Shell-m, Pecten	UCLA-1908B	1740	50		864	1064	1274	calib 8.10 Marine20; 70±65	Craib, J. L. 1982, Schroth, A. 1979	6524
ORA	CA-ORA-0195	421901	3726474	9	Terrace, coastal	Culver Storm Channel	A: 61-76 cm	61	76	Shell-m, Chione	UCLA-1908C	2630	60		1810	2060	2317	calib 8.10 Marine20; 70±65	Craib, J. L. 1982, Schroth, A. 1979	6523
ORA	CA-ORA-0195	421901	3726474	9	Terrace, coastal	Culver Storm Channel	C: 61-76 cm	61	76	Shell-m, Pecten and Chione	UCLA-1908D	4950	70		4710	4980	5278	calib 8.10 Marine20; 70±65	Craib, J. L. 1982, Schroth, A. 1979	6522
ORA	CA-ORA-0196	422326	3725950	10		Newport Bay	S61.5/E45: 30-40 cm	30	40	Shell-m, Chione	UCR-0478	6135	235		5740	6297	6849	calib 8.10 Marine20; 70±65	Craib, J. L. 1982, Schroth, A. 1979	6520
ORA	CA-ORA-0196	422326	3725950	10		Newport Bay	N30/W20: 30-40 cm	30	40	Shell-m, Halotis	UCR-0910	3075	170		2130	2603	3072	calib 8.10 Marine20; 70±65	Craib, J. L. 1982, UCR 1986	6521
ORA	CA-ORA-0197	422402	3725566	16		Rancho San Joaquin Golf	S51/W12: 20-30 cm	20	30	Shell-m, Aequipecten	UCLA-2106A	1070	60		256	441	632	calib 8.10 Marine20; 70±65	Schroth, A. 1983	6517
ORA	CA-ORA-0197	422402	3725566	16		Rancho San Joaquin Golf	S99/W16.5: 30-40 cm	30	40	Shell-m, Aequipecten	UCLA-2106B	210	60		0	10	70	calib 8.10 Marine20; 70±65	Schroth, A. 1983	6519
ORA	CA-ORA-0197	422402	3725566	16		Rancho San Joaquin Golf	S27/W19: 10-20 cm	10	20	Shell-m, Aequipecten	UCLA-2106C	545	80		0	42	122	calib 8.10 Marine20; 70±65	Schroth, A. 1983	6518
ORA	CA-ORA-0197	422402	3725566	16		Rancho San Joaquin Golf	S87/W18 Fea. 1: 40-50 cm	40	50	Shell-m, marine assumed	UCLA-2106D	3480	80		2809	3099	3372	calib 8.10 Marine20; 70±65	Schroth, A. 1983	6515
ORA	CA-ORA-0197	422402	3725566	16		Rancho San Joaquin Golf	S110/W20: 50-60 cm	50	60	Shell-m, Chione	UCR-0476	3815	140		3103	3514	3929	calib 8.10 Marine20; 70±65	Craib, J. L. 1982, Schroth, A. 1979	6514
ORA	CA-ORA-0197	422402	3725566	16		Rancho San Joaquin Golf	S16.5/W11.5: 40-50 cm	40	50	Shell-m, Chione	UCR-0477	1530	120		573	852	1154	calib 8.10 Marine20; 70±65	Craib, J. L. 1982, Schroth, A. 1979	6516
ORA	CA-ORA-0203	421644	3719271	203	Hill, ridge	San Joaquin Hills	N0/E2: 80-100 cm	80	100	Shell-m, Chione	UCLA-1932A	1400	60		535	726	921	calib 8.10 Marine20; 70±65	Howard, J. 1977, Schroth, A. 1979	6509
ORA	CA-ORA-0203	421644	3719271	203	Hill, ridge	San Joaquin Hills	N0/E2: 20-30 cm	20	30	Shell-m, Chione	UCLA-1932B	650	50		25	85	145	calib 8.10 Marine20; 70±65	Howard, J. 1977, Schroth, A. 1979	6511
ORA	CA-ORA-0203	421644	3719271	203	Hill, ridge	San Joaquin Hills	G: 50-60 cm	50	60	Shell-m, Ostrea	UCLA-1932C	250	75		0	10	70	calib 8.10 Marine20; 70±65	Howard, J. 1977, Schroth, A. 1979	6513
ORA	CA-ORA-0203	421644	3719271	203	Hill, ridge	San Joaquin Hills	G: 10-20 cm	10	20	Shell-m, Ostrea	UCLA-1932D	585	50		0	55	135	calib 8.10 Marine20; 70±65	Howard, J. 1977, Schroth, A. 1979	6512
ORA	CA-ORA-0203	421644	3719271	203	Hill, ridge	San Joaquin Hills	B: all levels			Shell-m, Chione	UCLA-1932E	1280	50		447	616	799	calib 8.10 Marine20; 70±65	Howard, J. 1977, Schroth, A. 1979	6510
ORA	CA-ORA-0206	420143	3722901	10	Floodplain	Bonita Creek	Unit 93, capped by 2 meters of fill	30	40	Shell-m, Chione c.	Beta-094831	1720	60	0	825	1044	1264	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32711
ORA	CA-ORA-0206	420143	3722901	10	Floodplain	Bonita Creek	Unit 94, capped by 2 meters of fill	20	30	Shell-m, Chione c.	Beta-094832	1730	70	0	821	1054	1278	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32712
ORA	CA-ORA-0206	420143	3722901	10	Floodplain	Bonita Creek	Unit 94, capped by 2 meters of fill	30	40	Shell-m, Chione c.	Beta-094833	1610	70	0	698	928	1164	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32713
ORA	CA-ORA-0206	420143	3722901	10	Floodplain	Bonita Creek	Unit 93, capped by 2 meters of fill	20	30	Shell-m, Chione c.	Beta-094834	1580	60	0	679	895	1116	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32714
ORA	CA-ORA-0206	420143	3722901	10	Floodplain	Bonita Creek	Unit 90, capped by 2 meters of fill	10	20	Shell-m, Argopecten	Beta-094835	1640	80	0	716	961	1211	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32715
ORA	CA-ORA-0206	420143	3722901	10	Floodplain	Bonita Creek	Unit 88, capped by 2 meters of fill	40	50	Shell-m, Chione c.	Beta-094836	1440	80	0	540	764	985	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32716
ORA	CA-ORA-0206	420143	3722901	10	Floodplain	Bonita Creek	Unit 90, capped by 2 meters of fill	30	40	Shell-m, Chione f.	Beta-094837	2030	70	0	1127	1362	1603	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32717
ORA	CA-ORA-0206	420143	3722901	10	Floodplain	Bonita Creek	Unit 88, capped by 2 meters of fill	30	40	Shell-m, Chione f.	Beta-094838	1390	60	0	530	717	914	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32718
ORA	CA-ORA-0206	420143	3722901	10	Floodplain	Bonita Creek	Unit 88, capped by 2 meters of fill	60	70	Shell-m, Chione c.	Beta-094839	1480	80	0	579	801	1041	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32719
ORA	CA-ORA-0206	420143	3722901	10	Floodplain	Bonita Creek	Unit 55, capped by 2 meters of fill	30	40	Shell-m, Chione c.	Beta-094840	1740	70	0	831	1064	1285	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32720
ORA	CA-ORA-0206	420143	3722901	10	Floodplain	Bonita Creek	Unit 55, capped by 2 meters of fill	20	30	Shell-m, Chione f.	Beta-094841	1820	80	0	903	1142	1371	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32721

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County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
ORA	CA-ORA-0206	420143	3722901	10	Floodplain	Bonita Creek	Unit 55, capped by 2 meters of fill	10	20	Shell-m, Chione f.	Beta-094842	1950	70	0	1045	1276	1517	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32722
ORA	CA-ORA-0206	420143	3722901	10	Floodplain	Bonita Creek	Unit 79, capped by 2 meters of fill	60	70	Shell-m, Chione c.	Beta-094843	1450	60	0	562	772	967	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32723
ORA	CA-ORA-0206	420143	3722901	10	Floodplain	Bonita Creek	Unit 68, capped by 2 meters of fill	50	60	Shell-m, Chione c.	Beta-094844	1740	60	0	849	1064	1279	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32724
ORA	CA-ORA-0206	420143	3722901	10	Floodplain	Bonita Creek	Unit 68, capped by 2 meters of fill	20	30	Shell-m, Chione c.	Beta-094845	1530	70	0	636	845	1076	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32725
ORA	CA-ORA-0206	420143	3722901	10	Floodplain	Bonita Creek	Unit 68, capped by 2 meters of fill	30	40	Shell-m, Chione f.	Beta-094846	1420	60	0	547	744	938	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32726
ORA	CA-ORA-0206	420143	3722901	10	Floodplain	Bonita Creek	Unit 68, capped by 2 meters of fill	40	50	Shell-m, Chione c.	Beta-094847	1600	80	0	680	918	1163	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32727
ORA	CA-ORA-0206	420143	3722901	10	Floodplain	Bonita Creek	Unit 79, capped by 2 meters of fill	10	20	Shell-m, Chione f.	Beta-094848	1210	70	0	349	563	753	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32728
ORA	CA-ORA-0206	420143	3722901	10	Floodplain	Bonita Creek	Unit 79, capped by 2 meters of fill	20	30	Shell-m, Chione f.	Beta-094849	1680	70	0	771	1003	1242	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32729
ORA	CA-ORA-0206	420143	3722901	10	Floodplain	Bonita Creek	Unit 79, capped by 2 meters of fill	40	50	Shell-m, Chione f.	Beta-094850	1840	80	0	916	1162	1388	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32730
ORA	CA-ORA-0221	421988	3721500	61	Floodplain	Newport	1: 85 cm	85	85	Shell-m, Argopecten	Beta-041957	930	70		76	319	513	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6508
ORA	CA-ORA-0221	421988	3721500	61	Floodplain	Newport	18: 286 cm	286	286	Shell-m, Halotis cracherodii	Beta-041958	2540	90		1664	1947	2283	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6506
ORA	CA-ORA-0221	421988	3721500	61	Floodplain	Newport	18: 290-300 cm	290	300	Shell-m, Mytilus	Beta-041959	2500	90		1588	1899	2214	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6507
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 4	10	20	Shell-m, Chione	Beta-073814	1850	80	0	922	1172	1398	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32622
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 4	30	40	Shell-m, Chione	Beta-073815	1560	80	0	651	876	1124	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32623
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 4	50	60	Shell-m, Chione	Beta-073816	1470	70	0	571	790	1007	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32624
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 12	60	70	Shell-m, Chione	Beta-073818	3250	70	0	2551	2827	3111	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32625
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 12	50	60	Shell-m, Chione	Beta-073819	2090	70	0	1207	1424	1682	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32626
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 156, Feature 9	10	20	Shell-m, Chione	Beta-073820	2340	60	0	1456	1702	1960	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32627
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 156	30	40	Shell-m, Chione	Beta-073821	2470	80	0	1569	1861	2146	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32628
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 10	10	20	Shell-m, Chione	Beta-073822	2210	60	0	1318	1551	1788	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32629
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 10	20	30	Shell-m, Chione	Beta-073823	2410	70	0	1523	1788	2057	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32630
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 10	30	40	Shell-m, Chione	Beta-073824	2450	70	0	1567	1836	2108	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32631
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 18	30	40	Shell-m, Chione	Beta-073825	2500	90	0	1588	1899	2214	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32632
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 18, Feature 2 (above it)	50	60	Shell-m, Chione	Beta-073826	2510	90	0	1607	1911	2235	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32633
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 18, Feature 2	60	70	Shell-m, Chione	Beta-073827	2340	90	0	1403	1704	1994	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32634
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 18, Feature 2 (below it)	70	80	Shell-m, Chione	Beta-073828	2920	80	0	2143	2433	2712	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32635
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 86	10	20	Shell-m, Chione	Beta-073829	1630	80	0	700	950	1194	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32636
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 86, Feature 4	30	40	Shell-m, Chione	Beta-073830	1610	80	0	685	929	1171	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32637
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 86, Feature 4	40	50	Shell-m, Chione	Beta-073831	1317	70	0	473	650	875	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32638
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 86	50	60	Shell-m, Chione	Beta-073832	1490	70	0	609	809	1045	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32639
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 86	70	80	Shell-m, Chione	Beta-073833	1480	80	0	579	801	1041	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32640
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 100, Feature 5	20	30	Shell-m, Chione	Beta-073834	2600	80	0	1739	2022	2306	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32641
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 100, Feature 5	30	40	Shell-m, Chione	Beta-073835	2460	80	0	1560	1849	2134	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32642
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 137	20	30	Shell-m, Chione	Beta-073836	1310	70	0	465	644	869	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32643
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 137	40	50	Shell-m, Chione	Beta-073837	1320	80	0	467	654	890	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32644
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 137, Feature 6	50	60	Shell-m, Chione	Beta-073838	1880	70	0	954	1202	1417	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32645
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 137, Feature 6	60	70	Shell-m, Chione	Beta-073839	2240	80	0	1326	1587	1856	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32646
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 137	90	100	Shell-m, Chione	Beta-073840	2120	70	0	1238	1454	1704	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32647
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 137	100	110	Shell-m, Chione	Beta-073841	2050	70	0	1149	1383	1626	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32648
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 137	110	120	Shell-m, Chione	Beta-073842	1490	80	0	591	810	1054	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32649
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 140, Feature 8	30	40	Shell-m, Chione	Beta-073843	2360	80	0	1439	1728	2006	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32650
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 140	40	50	Shell-m, Chione	Beta-073844	2410	80	0	1514	1788	2080	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32651
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 98, Feature 7	20	30	Shell-m, Chione	Beta-073845	1370	80	0	500	700	919	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32652
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 98, Feature 7	30	40	Shell-m, Chione	Beta-073846	1200	80	0	322	554	750	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32653
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 98, Feature 7	20	30	Charcoal	Beta-073847	260	50	-25	1	309	463	calib 8.10 IntCal20	Mason, Roger D. 1999	32654
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 137	30	40	Charcoal	Beta-073848	460	70	-25	315	497	629	calib 8.10 IntCal20	Mason, Roger D. 1999	32655
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 137	40	50	Charcoal	Beta-073849	890	60	-25	689	800	918	calib 8.10 IntCal20	Mason, Roger D. 1999	32656
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 137, Feature 6	50	60	Charcoal	Beta-073850	1650	80	-25	1377	1533	1708	calib 8.10 IntCal20	Mason, Roger D. 1999	32657
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 137, Feature 6	60	70	Charcoal	Beta-073851	1200	80	-25	959	1120	1278	calib 8.10 IntCal20	Mason, Roger D. 1999	32658
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 137	80	90	Shell-m, Chione	Beta-073852	1390	80	0	511	719	934	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32659
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 137	20	30	Charcoal	Beta-073853	380	70	-25	302	418	526	calib 8.10 IntCal20	Mason, Roger D. 1999	32660
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 141, Feature 7	30	40	Shell-m, Chione	Beta-073854	1110	80	0	263	476	671	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32661
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 141, Feature 7	20	30	Shell-m, Chione	Beta-073855	1590	70	0	678	906	1139	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32662
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 10, Feature 1	40	50	Shell-m, Chione	Beta-073856	3320	100	0	2608	2911	3248	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32663
ORA	CA-ORA-0225	422183	3721602	66	Hill, ridge	Bonita Creek	Unit 4	80	90	Shell-m, Chione	Beta-08490	2070	60	0	1178	1403	1627	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32706
ORA	CA-ORA-0227	422536	3720844	123	Hill, Ridge	Coyote Canyon	2: 10-20 cm	10	20	Charcoal	LJ-4254	230	70		1	221	456	calib 8.10 IntCal20	Douglas, R. 1980	6497
ORA	CA-ORA-0227	422536	3720844	123	Hill, Ridge	Coyote Canyon	2: 30-40 cm	30	40	Charcoal	LJ-4255	330	70		1	388	515	calib 8.10 IntCal20	Douglas, R.	

Appendix D-2: Archaeological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
ORA	CA-ORA-0231	423471	3719272	192	Cave, shelter	Coyote Canyon, French Cave	Unit 3	60	70	Shell-m, Chione	Beta-034340	560	80		0	46	126	calib 8.10 Marine20; 70±65	Jertberg, Patricia 1990	32539
ORA	CA-ORA-0231	423471	3719272	192	Cave, shelter	Coyote Canyon, French Cave	Unit 5	30	40	Shell-m, Chione	Beta-034341	420	70		0	19	89	calib 8.10 Marine20; 70±65	Jertberg, Patricia 1990	32540
ORA	CA-ORA-0231	423471	3719272	192	Cave, shelter	Coyote Canyon, French Cave	G-4: 15-23 cm	15	23	Charcoal	UCLA-1410	180	50		1	171	303	calib 8.10 IntCal20	Ericson, J. E. 1972, Schroth, A. 1979	6492
ORA	CA-ORA-0232	423420	3719154	191		Coyote Canyon, French Flat	not reported			Charcoal	Beta-07	870	70		675	786	919	calib 8.10 Marine20; 70±65	N. Whitney-Desautels 1989	32822
ORA	CA-ORA-0232	423420	3719154	191		Coyote Canyon, French Flat	not reported			Shell-m, Chione	Beta-07	810	50		376	568	753	calib 8.10 Marine20; 70±65	N. Whitney-Desautels 1989	32820
ORA	CA-ORA-0232	423420	3719154	191		Coyote Canyon, French Flat	not reported			Shell-m, Chione	Beta-07	930	60		491	668	887	calib 8.10 Marine20; 70±65	N. Whitney-Desautels 1989	32821
ORA	CA-ORA-0232	423420	3719154	191		Coyote Canyon, French Flat	not reported			Shell-m, Chione	Beta-07	1260	60		759	989	1230	calib 8.10 Marine20; 70±65	N. Whitney-Desautels 1989	32823
ORA	CA-ORA-0232	423420	3719154	191		Coyote Canyon, Signal Peak	30: 20-30 cm	20	30	Shell-m, Chione	Beta-041960	610	70		0	65	135	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6488
ORA	CA-ORA-0232	423420	3719154	191		Coyote Canyon, Signal Peak	14: 10-20 cm	10	20	Shell-m, Chione	Beta-041961	450	80		0	29	109	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6491
ORA	CA-ORA-0232	423420	3719154	191		Signal Peak	N-14: 41-56 cm	41	56	Shell-m, Chione	UCLA-1426a	810	60		1	198	392	calib 8.10 Marine20; 70±65	de Barros, P. 1990	6490
ORA	CA-ORA-0232	423420	3719154	191		Signal Peak	N-14: 41-56 cm	41	56	Shell-m, Chione	UCLA-1426b	930	60		89	320	508	calib 8.10 Marine20; 70±65	de Barros, P. 1990	6489
ORA	CA-ORA-0236	423511	3719437	185	Cave, Shelter	Coyote Canyon Cave	J-15: 122-137 cm	122	137	Shell-m, Chione f.	UCI-0214	1890	90		506	729	958	calib 8.10 Marine20; 70±65	Mitchell, L.L. 1991	6486
ORA	CA-ORA-0236	423511	3719437	185	Cave, Shelter	Coyote Canyon Cave	H-15: 132 cm	132	132	Shell-m, marine assumed	UCLA-1873A	1260	60		759	989	1230	calib 8.10 Marine20; 70±65	Mitchell 1975, Schroth 1983, Mitchell, L.L. 1991, Schroth, A. 1983	6487
ORA	CA-ORA-0236	423511	3719437	185	Cave, Shelter	Coyote Canyon Cave	K-18: 107-122 cm	107	122	Charcoal	UCLA-1873B	870	70		675	786	919	calib 8.10 IntCal20	Mitchell 1975, Schroth 1983, Mitchell, L.L. 1991, Schroth, A. 1983	6485
ORA	CA-ORA-0244	434301	3728765	160	Fan	Tomato Springs	S10/E60: 20-30 cm	20	30	Charcoal	Beta-002630	610	100		477	598	729	calib 8.10 IntCal20	Cottrell, M. G. 1981	6484
ORA	CA-ORA-0244	434301	3728765	160	Fan	Tomato Springs	S50/E130: 50-60 cm	50	60	Charcoal	Beta-002631	1160	110		798	802	1080	calib 8.10 IntCal20	Cottrell, M. G. 1981	6482
ORA	CA-ORA-0244	434301	3728765	160	Fan	Tomato Springs	Locus G, Feature 13, Unit 329, Level 2	140	200	Shell-m, Argopecten sp.	Beta-245011	710	40	-1.6	1	119	273	calib 8.10 Marine20; 70±65	Archer, Gavin 2007	33084
ORA	CA-ORA-0244	434301	3728765	160	Fan	Tomato Springs	N0/E30: 80 cm	80	80	Bone, burned mammal	Gak-07	910	130		564	832	1174	calib 8.10 IntCal20	Cottrell, M. G. 1981	6483
ORA	CA-ORA-0246	422027	3715643	23	Terrace, coastal	Newport	59: 80-100 cm	80	100	Shell-m, Pecten	Beta-046064	8550	80		8559	8877	9201	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6480
ORA	CA-ORA-0246	422027	3715643	23	Terrace, coastal	Newport	63: 90-100 cm	90	100	Shell-m, Chione	Beta-046065	7720	80		7678	7928	8174	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6481
ORA	CA-ORA-0246	422026	3715643	23	Terrace, coastal	PCH	Unit 59	80	100	Shell-m, Argopecten sp.		8550	80		9076	9384	9669	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	33026
ORA	CA-ORA-0246	422026	3715643	23	Terrace, coastal	PCH	Unit 63	90	100	Shell-m, Chione		7720	80		8064	8355	8627	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	33025
ORA	CA-ORA-0260	398915	3734918	11	Terrace, coastal	Hellman Ranch	Unit 2, 60-70 cm	60	70	Shell-m, marine	Beta-155493	4670	100	0	4274	4619	4948	calib 8.10 Marine20; 70±65	York, Andrew 2002	32799
ORA	CA-ORA-0260	398915	3734918	11	Terrace, coastal	Hellman Ranch	Unit 5, 20-30 cm	20	30	Shell-m, marine	Beta-155494	2670	70	0	1822	2109	2358	calib 8.10 Marine20; 70±65	York, Andrew 2002	32800
ORA	CA-ORA-0260	398915	3734918	11	Terrace, coastal	Hellman Ranch	Unit 5, 40-50 cm	40	50	Shell-m, marine	Beta-155495	3850	90	0	3252	3554	3864	calib 8.10 Marine20; 70±65	York, Andrew 2002	32801
ORA	CA-ORA-0260	398915	3734918	11	Terrace, coastal	Landing Hill	Feature			Shell-m, Abalone	Beta-189220	4980	40		4803	5015	5273	calib 8.10 Marine20; 70±65	Cleland, James 2007	33896
ORA	CA-ORA-0260	398915	3734918	11	Terrace, coastal	Landing Hill	Burial 15			Bone, human tooth	Beta-189234	3720	40		3927	4060	4228	calib 8.10 IntCal20	Cleland, James 2007	33909
ORA	CA-ORA-0260	398915	3734918	11	Terrace, coastal	Landing Hill	Unit 4, 30-40 an, midden	30	40	Shell-m, Argopecten	Beta-198220	2790	40		2000	2253	2499	calib 8.10 Marine20; 70±65	Cleland, James 2007	33921
ORA	CA-ORA-0260	398915	3734918	11	Terrace, coastal	Landing Hill	Unit 4, 70-80 cm, midden	70	80	Shell-m, Chione	Beta-198221	3520	40		2908	3150	3375	calib 8.10 Marine20; 70±65	Cleland, James 2007	33922
ORA	CA-ORA-0260	398915	3734918	11	Terrace, coastal	Landing Hill	Unit 6, 10-20 cm, midden	10	20	Shell-m, Argopecten	Beta-198222	3950	40		3437	3674	3913	calib 8.10 Marine20; 70±65	Cleland, James 2007	33923
ORA	CA-ORA-0260	398915	3734918	11	Terrace, coastal	Landing Hill	Unit 6, 60-70 cm, midden	60	70	Shell-m, Argopecten	Beta-198223	5510	40		5423	5624	5865	calib 8.10 Marine20; 70±65	Cleland, James 2007	33924
ORA	CA-ORA-0261	399038	3734935	12	Terrace, coastal	Hellman Ranch	Unit 2, 20-30 cm	20	30	Shell-m, marine	Beta-155496	2370	90	0	1440	1740	2042	calib 8.10 Marine20; 70±65	York, Andrew 2002	32802
ORA	CA-ORA-0261	399038	3734935	12	Terrace, coastal	Hellman Ranch	Unit 2, 50-60 cm	50	60	Shell-m, marine	Beta-155497	2510	60	0	1642	1909	2168	calib 8.10 Marine20; 70±65	York, Andrew 2002	32803
ORA	CA-ORA-0261	399038	3734935	12	Terrace, coastal	Landing Hill	Feature			Shell-m, Argopecten	Beta-189224	2270	40		1392	1619	1837	calib 8.10 Marine20; 70±65	Cleland, James 2007	33900
ORA	CA-ORA-0261	399038	3734935	12	Terrace, coastal	Landing Hill	Feature			Shell-m, Argopecten	Beta-189225	2200	40		1324	1539	1747	calib 8.10 Marine20; 70±65	Cleland, James 2007	33901
ORA	CA-ORA-0261	399038	3734935	12	Terrace, coastal	Landing Hill	Unit 1, 10-20 cm, midden	10	20	Shell-m, Argopecten	Beta-198224	2490	40		1654	1884	2122	calib 8.10 Marine20; 70±65	Cleland, James 2007	33925
ORA	CA-ORA-0261	399038	3734935	12	Terrace, coastal	Landing Hill	Unit 1, 40-50 cm, midden	40	50	Shell-m, Argopecten	Beta-198225	2290	40		1413	1642	1864	calib 8.10 Marine20; 70±65	Cleland, James 2007	33926
ORA	CA-ORA-0261	399038	3734935	12	Terrace, coastal	Landing Hill	Unit 1, 70-80 cm, midden	70	80	Shell-m, Argopecten	Beta-198226	2360	40		1508	1726	1959	calib 8.10 Marine20; 70±65	Cleland, James 2007	33927
ORA	CA-ORA-0261	399038	3734935	12	Terrace, coastal	Landing Hill	Unit 1, 100-110 cm, midden	100	110	Shell-m, Argopecten	Beta-198227	2460	40		1616	1847	2083	calib 8.10 Marine20; 70±65	Cleland, James 2007	33928
ORA	CA-ORA-0261	399038	3734935	12	Terrace, coastal	Landing Hill	Unit 3, 10-20 cm, midden	10	20	Shell-m, Argopecten	Beta-198228	2580	40		1763	1996	2257	calib 8.10 Marine20; 70±65	Cleland, James 2007	33929
ORA	CA-ORA-0261	399038	3734935	12	Terrace, coastal	Landing Hill	Unit 3, 50-60 an, midden	50	60	Shell-m, Argopecten	Beta-198229	2340	40		1479	1702	1933	calib 8.10 Marine20; 70±65	Cleland, James 2007	33930
ORA	CA-ORA-0262	399190	3735162	14	Terrace, coastal	Hellman Ranch	Unit 1, 10-20 cm	10	20	Shell-m, marine	Beta-155498	2080	70	0	1185	1414	1664	calib 8.10 Marine20; 70±65	York, Andrew 2002	32804
ORA	CA-ORA-0262	399190	3735162	14	Terrace, coastal	Hellman Ranch	Unit 1, 50-60 cm	50	60	Shell-m, marine	Beta-155499	4870	120	0	4508	4878	5269	calib 8.10 Marine20; 70±65	York, Andrew 2002	32805
ORA	CA-ORA-0262	399190	3735162	14	Terrace, coastal	Hellman Ranch	Unit 6, 10-20 cm	10	20	Shell-m, marine	Beta-155500	1420	80	0	527	746	962	calib 8.10 Marine20; 70±65	York, Andrew 2002	32806
ORA	CA-ORA-0262	399190	3735162	14	Terrace, coastal	Hellman Ranch	Unit 6, 70-80 cm	70	80	Shell-m, marine	Beta-155501	4550	90	0	4149	4468	4797	calib 8.10 Marine20; 70±65	York, Andrew 2002	32807
ORA	CA-ORA-0262	399190	3735162	14	Terrace, coastal	Landing Hill	Burial 16			Shell-m, Chione	Beta-174348	1720	70		811	1044	1271	calib 8.10 Marine20; 70±65	Cleland, James 2007	33895
ORA	CA-ORA-0262	399190	3735162	14	Terrace, coastal	Landing Hill	Burial 16			Bone, human tooth	Beta-189235	780	40		662	703	771	calib 8.10 IntCal20	Cleland, James 2007	33910
ORA	CA-ORA-0262	399190	3735162	14	Terrace, coastal	Landing Hill	Burial 32			Bone, human tooth	Beta-196450	2400	40		2342	2437	2697	calib 8.10 IntCal20	Cleland, James 2007	33918
ORA	CA-ORA-0262	3991																		

Appendix D-2: Archaeological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
ORA	CA-ORA-0263	399143	3735252	14	Terrace, coastal	Hellman Ranch	Unit 2, 10-20 cm	10	20	Shell-m, marine	Beta-155504	4110	90	0	3559	3884	4220	calib 8.10 Marine20; 70±65	York, Andrew 2002	32809
ORA	CA-ORA-0263	399143	3735252	14	Terrace, coastal	Hellman Ranch	Unit 2, 60-70 cm	60	70	Shell-m, marine	Beta-155505	4550	90	0	4149	4468	4797	calib 8.10 Marine20; 70±65	York, Andrew 2002	32810
ORA	CA-ORA-0263	399143	3735252	14	Terrace, coastal	Landing Hill	Burial 5			Shell-m,	Beta-174339	5280	50		5124	5380	5591	calib 8.10 Marine20; 70±65	Cleland, James 2007	33886
ORA	CA-ORA-0263	399143	3735252	14	Terrace, coastal	Landing Hill	Burial 12			Shell-m,	Beta-174346	2550	40		1714	1958	2197	calib 8.10 Marine20; 70±65	Cleland, James 2007	33893
ORA	CA-ORA-0263	399143	3735252	14	Terrace, coastal	Landing Hill	Burial 13			Shell-m,	Beta-174347	4190	70		3691	3990	4288	calib 8.10 Marine20; 70±65	Cleland, James 2007	33894
ORA	CA-ORA-0263	399143	3735252	14	Terrace, coastal	Landing Hill	U15,50cm, feature	50	50	Shell-m,	Beta-189222	5260	40		5117	5360	5575	calib 8.10 Marine20; 70±65	Cleland, James 2007	33898
ORA	CA-ORA-0263	399143	3735252	14	Terrace, coastal	Landing Hill	U15, 50 cm, feature	50	50	Shell-m,	Beta-189223	5190	40		5011	5275	5507	calib 8.10 Marine20; 70±65	Cleland, James 2007	33899
ORA	CA-ORA-0263	399143	3735252	14	Terrace, coastal	Landing Hill	Burial 5			Bone, human tooth	Beta-189229	2050	40		1889	1998	2118	calib 8.10 IntCal20	Cleland, James 2007	33905
ORA	CA-ORA-0263	399143	3735252	14	Terrace, coastal	Landing Hill	Burial 12			Bone, human tooth	Beta-189232	2290	40		2155	2304	2355	calib 8.10 IntCal20	Cleland, James 2007	33907
ORA	CA-ORA-0263	399143	3735252	14	Terrace, coastal	Landing Hill	Burial 13			Bone, human tooth	Beta-189233	4140	40		4531	4683	4825	calib 8.10 IntCal20	Cleland, James 2007	33908
ORA	CA-ORA-0263	399143	3735252	14	Terrace, coastal	Landing Hill	U15-3, 0-10 an	0	10	Bone, human tooth	Beta-189242	1850	40		1627	1762	1868	calib 8.10 IntCal20	Cleland, James 2007	33915
ORA	CA-ORA-0263	399143	3735252	14	Terrace, coastal	Landing Hill	Burial 33			Bone, human tooth	Beta-196451	760	40		574	691	734	calib 8.10 IntCal20	Cleland, James 2007	33919
ORA	CA-ORA-0263	399143	3735252	14	Terrace, coastal	Landing Hill	L2-2.0-10 an	0	10	Bone, human tooth	Beta-196452	1910	40		1724	1821	1926	calib 8.10 IntCal20	Cleland, James 2007	33920
ORA	CA-ORA-0263	399143	3735252	14	Terrace, coastal	Landing Hill	Unit 1, 70-80 cm, midden	70	80	Shell-m,	Beta-198235	4200	40		3744	4003	4261	calib 8.10 Marine20; 70±65	Cleland, James 2007	33936
ORA	CA-ORA-0263	399143	3735252	14	Terrace, coastal	Landing Hill	Unit 3, 10-20 cm, midden	10	20	Shell-m,	Beta-198236	4460	40		4085	4346	4599	calib 8.10 Marine20; 70±65	Cleland, James 2007	33937
ORA	CA-ORA-0263	399143	3735252	14	Terrace, coastal	Landing Hill	Unit 3, 70-80 an, midden	70	80	Shell-m,	Beta-198237	2470	40		1627	1859	2095	calib 8.10 Marine20; 70±65	Cleland, James 2007	33938
ORA	CA-ORA-0263	399143	3735252	14	Terrace, coastal	Landing Hill	Unit 8, 10-20 an, midden	10	20	Shell-m,	Beta-198238	2290	40		1413	1642	1864	calib 8.10 Marine20; 70±65	Cleland, James 2007	33939
ORA	CA-ORA-0263	399143	3735252	14	Terrace, coastal	Landing Hill	Unit 8, 40-50 an, midden	40	50	Shell-m,	Beta-198239	2810	40		2027	2280	2542	calib 8.10 Marine20; 70±65	Cleland, James 2007	33940
ORA	CA-ORA-0263	399143	3735252	14	Terrace, coastal	Landing Hill	Unit 8, 70-80 an, midden	70	80	Shell-m,	Beta-198240	3860	40		3350	3562	3811	calib 8.10 Marine20; 70±65	Cleland, James 2007	33941
ORA	CA-ORA-0263	399143	3735252	14	Terrace, coastal	Landing Hill	Burial 34			Bone, human tooth	Beta-198244	3600	40		3729	3907	4077	calib 8.10 IntCal20	Cleland, James 2007	33945
ORA	CA-ORA-0263	399143	3735252	14	Terrace, coastal	Landing Hill	Pit hearth			Shell-m,	Beta-209734	4590	40		4282	4522	4789	calib 8.10 Marine20; 70±65	Cleland, James 2007	33949
ORA	CA-ORA-0263	399143	3735252	14	Terrace, coastal	Landing Hill	B29-U1 7, 8-10 cm, midden	8	10	Shell-m,	Beta-210819	4020	40		3504	3763	4008	calib 8.10 Marine20; 70±65	Cleland, James 2007	33951
ORA	CA-ORA-0263	399143	3735252	14	Terrace, coastal	Landing Hill	B29-U1 7, 20-22 cm, midden	20	22	Shell-m,	Beta-210820	5200	40		5028	5288	5519	calib 8.10 Marine20; 70±65	Cleland, James 2007	33952
ORA	CA-ORA-0263	399143	3735252	14	Terrace, coastal	Landing Hill	B29-U1 7, 62-64 cm, midden	62	64	Shell-m,	Beta-210821	4140	40		3669	3924	4179	calib 8.10 Marine20; 70±65	Cleland, James 2007	33953
ORA	CA-ORA-0263	399143	3735252	14	Terrace, coastal	Landing Hill	L3-4, 8-10 an, midden	8	10	Shell-m,	Beta-210822	4450	40		4074	4332	4585	calib 8.10 Marine20; 70±65	Cleland, James 2007	33954
ORA	CA-ORA-0263	399143	3735252	14	Terrace, coastal	Landing Hill	L3-4, 32-34 cm, midden	32	34	Shell-m,	Beta-210823	5120	40		4931	5181	5435	calib 8.10 Marine20; 70±65	Cleland, James 2007	33955
ORA	CA-ORA-0263	399143	3735252	14	Terrace, coastal	Landing Hill	L3-4, 60-62 cm, midden	60	62	Shell-m,	Beta-210824	4020	40		3504	3763	4008	calib 8.10 Marine20; 70±65	Cleland, James 2007	33956
ORA	CA-ORA-0263	399143	3735252	14	Terrace, coastal	Landing Hill	L2-7, 50-60 cm, midden	50	60	Shell-m,	Beta-210825	4020	40		3504	3763	4008	calib 8.10 Marine20; 70±65	Cleland, James 2007	33957
ORA	CA-ORA-0263	399143	3735252	14	Terrace, coastal	Landing Hill	B5-8NE-2, 45-50 cm, midden	45	50	Charcoal	Beta-210826	1590	40		1384	1466	1537	calib 8.10 IntCal20	Cleland, James 2007	33958
ORA	CA-ORA-0263	399143	3735252	14	Terrace, coastal	Landing Hill	Hearth, feature			Shell-m,	Beta-210827	3750	40		3205	3430	3668	calib 8.10 Marine20; 70±65	Cleland, James 2007	33959
ORA	CA-ORA-0263	399144	3735252	14	Terrace, coastal	Seal Beach	Cremation			Bone-t, human tooth	Beta-189243	1760	40		1546	1646	1721	calib 8.10 IntCal20	Koerper, H. C. 2006	6477
ORA	CA-ORA-0263	399144	3735252	14	Terrace, coastal	Seal Beach	Cremation			Bone-t, human tooth	Beta-191551	2080	40		1890	2018	2123	calib 8.10 IntCal20	Koerper, H. C. 2006	6478
ORA	CA-ORA-0263	399144	3735252	14	Terrace, coastal	Seal Beach	Feature			Charcoal	Beta-192662	1590	40		1384	1466	1537	calib 8.10 IntCal20	Koerper, H. C. 2006	6479
ORA	CA-ORA-0263	399144	3735252	14	Terrace, coastal	Seal Beach	Cremation			Bone-t, human tooth	Beta-196448	1660	40		1413	1547	1692	calib 8.10 IntCal20	Koerper, H. C. 2006	6478
ORA	CA-ORA-0263	399144	3735252	14	Terrace, coastal	Seal Beach	Cremation			Bone-t, human tooth	Beta-196453	1950	40		1746	1875	1988	calib 8.10 IntCal20	Koerper, H. C. 2006	6475
ORA	CA-ORA-0263	399144	3735252	14	Terrace, coastal	Seal Beach	Cremation			Bone-t, human tooth	Beta-196454	2150	40		2000	2134	2305	calib 8.10 IntCal20	Koerper, H. C. 2006	6473
ORA	CA-ORA-0263	399144	3735252	14	Terrace, coastal	Seal Beach	Cremation			Bone-t, human tooth	Beta-196455	1870	40		1646	1780	1884	calib 8.10 IntCal20	Koerper, H. C. 2006	6476
ORA	CA-ORA-0263	399144	3735252	14	Terrace, coastal	Seal Beach	Cremation			Bone-t, human tooth	Beta-196457	2240	40		2147	2229	2343	calib 8.10 IntCal20	Koerper, H. C. 2006	6472
ORA	CA-ORA-0263	399143	3735252	14	Terrace, coastal	Seal Beach	Feature 2			Charcoal	Beta-210826	1590	40	-26.6	1384	1466	1537	calib 8.10 IntCal20		33881
ORA	CA-ORA-0264	399200	3735318	7	Terrace, coastal	Hellman Ranch	Unit 4, 10-20 cm	10	20	Shell-m, marine	Beta-155506	3500	100	0	2799	3122	3425	calib 8.10 Marine20; 70±65	York, Andrew 2002	32811
ORA	CA-ORA-0264	399200	3735318	7	Terrace, coastal	Hellman Ranch	Unit 4, 50-60 cm	50	60	Shell-m, marine	Beta-155507	5010	140	0	4642	5050	5448	calib 8.10 Marine20; 70±65	York, Andrew 2002	32812
ORA	CA-ORA-0264	399200	3735318	7	Terrace, coastal	Hellman Ranch	Unit 6, 10-20 cm	10	20	Shell-m, marine	Beta-155508	1990	110	0	1013	1321	1621	calib 8.10 Marine20; 70±65	York, Andrew 2002	32813
ORA	CA-ORA-0264	399200	3735318	7	Terrace, coastal	Hellman Ranch	Unit 6, 70-80 cm	70	80	Shell-m, marine	Beta-155509	2040	80	0	1120	1373	1629	calib 8.10 Marine20; 70±65	York, Andrew 2002	32814
ORA	CA-ORA-0264	399200	3735318	7	Terrace, coastal	Landing Hill	Burial 1			Shell-m, Ostrea	Beta-174335	3620	40		3025	3272	3489	calib 8.10 Marine20; 70±65	Cleland, James 2007	33882
ORA	CA-ORA-0264	399200	3735318	7	Terrace, coastal	Landing Hill	Burial 2			Shell-m, Argopecten	Beta-174336	3660	90		3000	3318	3623	calib 8.10 Marine20; 70±65	Cleland, James 2007	33883
ORA	CA-ORA-0264	399200	3735318	7	Terrace, coastal	Landing Hill	Burial 3			Shell-m, Chione	Beta-174337	4670	60		4350	4622	4862	calib 8.10 Marine20; 70±65	Cleland, James 2007	33884
ORA	CA-ORA-0264	399200	3735318	7	Terrace, coastal	Landing Hill	Burial 6			Shell-m, Argopecten	Beta-174340	2230	40		1356	1573	1791	calib 8.10 Marine20; 70±65	Cleland, James 2007	33887
ORA	CA-ORA-0264	399200	3735318	7	Terrace, coastal	Landing Hill	Burial 7			Shell-m, Chione	Beta-174341	4700	40		4408	4658	4867	calib 8.10 Marine20; 70±65	Cleland, James 2007	33888
ORA	CA-ORA-0264	399200	3735318	7	Terrace, coastal	Landing Hill	Burial 8			Shell-m, Argopecten	Beta-174342	4220	40		3774	4029	4290	calib 8.10 Marine20; 70±65	Cleland, James 2007	33889
ORA	CA-ORA-0264	399200	3735318	7	Terrace, coastal	Landing Hill	Burial 9			Shell-m, Argopecten	Beta-174343	4520	40		4161	4428	4692	calib 8.10 Marine20; 70±65	Cleland, James 2007	33890
ORA	CA-ORA-0264	399200	3735318	7	Terrace, coastal	Landing Hill	Burial 10			Shell-m, Argopecten	Beta-174344	2260	40		1384	1608	1825	calib 8.10 Marine20; 70±65	Cleland, James 2007	33891
ORA	CA-ORA-0264	399200	3735318	7	Terrace, coastal	Landing Hill	Burial 1B			Bone, human tooth	Beta-189226	3440	40		3576	3697	3828	calib 8.10 IntCal20	Cleland, James 2007	33902
ORA	CA-ORA-0264	399200	3735318	7	Terrace, coastal	Landing Hill	Burial 2			Bone, human tooth	Beta-189227	2810	40		2784	2913	3056	calib 8.10 IntCal20	Cleland, James 2007	33903
ORA	CA-ORA-0264	399200	3735318	7	Terrace, coastal	Landing Hill	Burial 3			Bone, human tooth	Beta-189228	2740	40		2758	2828	2931	calib 8.10 IntCal20	Cleland, James 2007	33904
ORA	CA-ORA-0264	399200	3735318	7	Terrace, coastal	Landing Hill	Burial 8			Bone, human tooth	Beta-189231	3960	40		4258	4423	4523	calib 8.10 IntCal20	Cleland, James 2007	33906
ORA	CA-ORA-0264	399200	3735318	7	Terrace, coastal	Landing Hill	Burial 17			Bone, human tooth	Beta-189236	3710	40		3923	4046	4223	calib 8.10 IntCal20	Cleland, James 2007	33911
ORA	CA-ORA-0264	399200	3735318	7	Terrace, coastal	Landing Hill	Burial 18			Bone, human tooth	Beta-189237	3860	50		4101	4282	4416	calib 8.10 IntCal20	Cleland, James 2007	33912
ORA	CA-ORA-0264	399200	3735318	7	Terrace, coastal	Landing Hill	Burial 21A			Bone, human tooth	Beta-189239	2670	40		2740	2779	2853	calib 8.10 IntCal20	Cleland, James 2007	33913
ORA	CA-ORA-0264	399200	3735318	7	Terrace, coastal	Landing Hill	Burial 21B			Bone, human tooth	Beta-189240	2580	40		2498	2725	2763	calib 8.10 IntCal20	Cleland, James 2007	33914</

Appendix D-2: Archaeological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
ORA	CA-ORA-0270	424378	3719613	268	Hill, ridge	San Joaquin Hills	1: 70-80 cm	70	80	Shell-m, Chione	Beta-030758	1010	60		154	389	565	calib 8.10 Marine20; 70±65	de Barros, P. 1990	6470
ORA	CA-ORA-0271	423553	3719381	179	Cave, shelter	Coyote Canyon Landfill	Unit 4, 0-10	0	10	Shell-m, marine	Beta-029205	600	70		0	61	131	calib 8.10 Marine20; 70±65	N. Whitney-Desautels 1989	32516
ORA	CA-ORA-0271	423553	3719381	179	Cave, shelter	Coyote Canyon Landfill	Unit 4, 10-20	10	20	Shell-m, marine	Beta-029206	780	60		1	174	365	calib 8.10 Marine20; 70±65	N. Whitney-Desautels 1989	32517
ORA	CA-ORA-0272	423693	3719368	195	Hill, ridge	Coyote Canyon Landfill	Surface	0	2	Shell-m, marine	Beta-029207	810	60		1	198	392	calib 8.10 Marine20; 70±65	N. Whitney-Desautels 1989	32518
ORA	CA-ORA-0272	423693	3719368	195	Hill, ridge	Coyote Canyon Landfill	0-20	0	20	Shell-m, marine	Beta-029208	880	90		16	268	476	calib 8.10 Marine20; 70±65	N. Whitney-Desautels 1989	32519
ORA	CA-ORA-0274	423761	3718943	237		Newport	1: 20-40	20	40	Shell-m, Argopecten	Beta-023806	590	70		0	56	126	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6465
ORA	CA-ORA-0274	423761	3718943	237		Newport	1: 40-60 cm	40	60	Charcoal	Beta-023807	600	90		491	596	719	calib 8.10 IntCal20	Mason, Roger D. 1994	6455
ORA	CA-ORA-0274	423761	3718943	237		Newport	1: 40-60 cm	40	60	Shell-m, Argopecten	Beta-023808	730	70		1	140	322	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6459
ORA	CA-ORA-0274	423761	3718943	237		Newport	1: 60-80 cm	60	80	Shell-m, Argopecten	Beta-023809	930	60		89	320	508	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6464
ORA	CA-ORA-0274	423761	3718943	237		Newport	1: 0-20 cm	0	20	Shell-m, Argopecten	Beta-023810	780	70		1	176	375	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6457
ORA	CA-ORA-0274	423761	3718943	237		Newport	18: 30-40 cm	30	40	Charcoal, wood	Beta-058718	360	50		311	405	499	calib 8.10 IntCal20	Mason, Roger D. 1994	6462
ORA	CA-ORA-0274	423761	3718943	237		Newport	6: 20-30 cm	20	30	Shell-m, Chione	Beta-058719	1020	100		132	393	631	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6461
ORA	CA-ORA-0274	423761	3718943	237		Newport	6: 56-60 cm	56	60	Shell-m, Chione	Beta-058720	890	60		53	280	480	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6467
ORA	CA-ORA-0274	423761	3718943	237		Newport	35: 0-10 cm	0	10	Shell-m, Argopecten	Beta-058721	760	60		1	158	344	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6458
ORA	CA-ORA-0274	423761	3718943	237		Newport	65: 10-20 cm	10	20	Shell-m, Chione	Beta-058722	790	60		1	181	375	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6456
ORA	CA-ORA-0274	423761	3718943	237		Newport	65: 50-60 cm	50	60	Shell-m, Chione	Beta-058723	960	60		122	347	532	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6463
ORA	CA-ORA-0274	423761	3718943	237		Newport	58: 10-20 cm	10	20	Charcoal, wood	Beta-058724	270	80		1	316	497	calib 8.10 IntCal20	Mason, Roger D. 1994	6466
ORA	CA-ORA-0274	423761	3718943	237		Newport	58: 30-40 cm	30	40	Shell-m, Chione	Beta-058725	380	60		0	10	90	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6469
ORA	CA-ORA-0274	423761	3718943	237		Newport	58: 60-70 cm	60	70	Charcoal, wood	Beta-058726	390	70		305	428	528	calib 8.10 IntCal20	Mason, Roger D. 1994	6460
ORA	CA-ORA-0274	423761	3718943	237		Newport	58: 70-80 cm	70	80	Charcoal, wood	Beta-058727	670	90		514	628	768	calib 8.10 IntCal20	Mason, Roger D. 1994	6454
ORA	CA-ORA-0274	423761	3718943	237		Newport	32: 20-30 cm	20	30	Shell-m, Chione	Beta-058728	540	60		0	40	100	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6468
ORA	CA-ORA-0275	423878	3720153	194	Hill, ridge	Coyote Canyon Landfill	Unit 6, 30-40	30	40	Shell-m, marine	Beta-029209	210	80		0	10	70	calib 8.10 Marine20; 70±65	N. Whitney-Desautels 1989	32520
ORA	CA-ORA-0275	423878	3720153	194	Hill, ridge	Coyote Canyon Landfill	Unit 6, 40-50	40	50	Shell-m, marine	Beta-029210	550	80		0	44	124	calib 8.10 Marine20; 70±65	N. Whitney-Desautels 1989	32521
ORA	CA-ORA-0275	423878	3720153	194	Hill, ridge	Coyote Canyon Landfill	Unit 6, 50-60	50	60	Shell-m, marine	Beta-029211	630	70		28	78	128	calib 8.10 Marine20; 70±65	N. Whitney-Desautels 1989	32522
ORA	CA-ORA-0275	423878	3720153	194	Hill, ridge	Coyote Canyon Landfill	Unit 6, 60-70	60	70	Shell-m, marine	Beta-029212	500	70		0	36	106	calib 8.10 Marine20; 70±65	N. Whitney-Desautels 1989	32523
ORA	CA-ORA-0275	423878	3720153	194	Hill, ridge	Coyote Canyon Landfill	Unit 6, 70-80	70	80	Shell-m, marine	Beta-029213	730	90		1	148	354	calib 8.10 Marine20; 70±65	N. Whitney-Desautels 1989	32524
ORA	CA-ORA-0287	421301	3725626	14	Hill, ridge	Upper Newport Canyon	Burial 4			Shell-m, Haliotis	Beta-013816	3100	80		2341	2635	2902	calib 8.10 Marine20; 70±65	Clevenger, Joyce 1986	6448
ORA	CA-ORA-0287	421301	3725626	14	Hill, ridge	Upper Newport Canyon	Burial 3			Shell-m, Haliotis cracherodii	Beta-013817	3580	90		2899	3220	3512	calib 8.10 Marine20; 70±65	Clevenger, Joyce 1986	6447
ORA	CA-ORA-0287	421301	3725626	14	Hill, ridge	Upper Newport Canyon	30-40 cm	30	40	Shell-m, marine shell?	Beta-013819	1180	70		320	538	717	calib 8.10 Marine20; 70±65	Clevenger, Joyce 1986	6449
ORA	CA-ORA-0287	421301	3725626	14	Hill, ridge	Upper Newport Canyon	1: 30-40 cm	30	40	Shell-m, Chione	LJ-4813	1180	70	0.9	320	538	717	calib 8.10 Marine20; 70±65	Schroth, A. 1983	6450
ORA	CA-ORA-0294	405360	3727781		Terrace, coastal	Bolsa Bay	Unit 1, 50-60 cm	50	60	Shell-m, Chione	Beta-088150	4170	70		3670	3964	4267	calib 8.10 Marine20; 70±65	Strudwick, Ivan H. 1995	32704
ORA	CA-ORA-0294	405057	3727601	10	Floodplain	Bolsa Chica	Section 4, assumed shell is from arroyo cut bank	100	150	Shell-m, marine assumed	UCLA-2553D	2150	23		1721	1966	2208	calib 8.10 Marine20; 70±65	Scientific Resource Surveys 1985	33281
ORA	CA-ORA-0298	400633	3732965	4	Terrace, coastal	Seal Beach Naval	Unit 1	20	30	Shell-m, Chione sp.	Beta-063177	4530	60	0.1	4150	4442	4731	calib 8.10 Marine20; 70±65	Whitaker, Adrian R.	32573
ORA	CA-ORA-0305	429495	3719336	114	Hill, ridge	Laguna Canyon	Unit 2, 70-80 cm	70	80	Shell-m, Mytilus	Beta-110366	6760	50		6754	6991	7226	calib 8.10 Marine20; 70±65	Strudwick, Ivan H. 1997	32740
ORA	CA-ORA-0305	429495	3719336	114	Hill, ridge	Laguna Canyon	Unit 2, 90-100 cm	90	100	Shell-m, Mytilus	Beta-110367	6750	50		6741	6980	7215	calib 8.10 Marine20; 70±65	Strudwick, Ivan H. 1997	32741
ORA	CA-ORA-0322/1118	399231	3734667	7	Terrace, coastal	Seal Beach Naval	Trench 8, 71 meters east of Gardeners Rd. capped by 30 cm of fill; (+/-40 yr lab error used to calibrate)	70	80	Shell-m, marine	Beta-07	2120	40		1272	1451	1674	calib 8.10 Marine20; 70±65	Wiley, Lorraine M. 2003	33367
ORA	CA-ORA-0322/1118	399231	3734667	7	Terrace, coastal	Seal Beach Naval	Unit 3	70	80	Shell-m, Chione	Beta-063178	3930	70	0.5	3378	3650	3925	calib 8.10 Marine20; 70±65	Whitaker, Adrian R.	32574
ORA	CA-ORA-0322/1118	399231	3734667	7	Terrace, coastal	Seal Beach Naval				Shell-m, Tivela	Beta-099437	2190	60		1298	1528	1757	calib 8.10 Marine20; 70±65	Whitaker, Adrian R.	32733
ORA	CA-ORA-0322/1118	399231	3734667	7	Terrace, coastal	Seal Beach Naval				Shell-m, Argopecten	Beta-099438	2930	50		2199	2445	2699	calib 8.10 Marine20; 70±65	Whitaker, Adrian R.	32734
ORA	CA-ORA-0322/1118	399231	3734667	7	Terrace, coastal	Seal Beach Naval				Shell-m, Chione	Beta-099439	3820	70		3256	3516	3805	calib 8.10 Marine20; 70±65	Whitaker, Adrian R.	32735
ORA	CA-ORA-0322/1118	399231	3734667	7	Terrace, coastal	Seal Beach Naval				Shell-m, Chione sp.	Beta-099440	4420	70		3983	4293	4580	calib 8.10 Marine20; 70±65	Whitaker, Adrian R.	32736
ORA	CA-ORA-0322/1118	399231	3734667	7	Terrace, coastal	Seal Beach Naval	IRP Site 73, Unit A10S/18E, Feature 4, broken shell lens	10	30	Shell-m, Chione	Beta-178093	4280	50	1.1	3853	4110	4380	calib 8.10 Marine20; 70±65	Chatters, James Carl 2003	32858
ORA	CA-ORA-0323	423024	3714293	27	Terrace, coastal	Crystal Cove	7: 40-50 cm	40	50	Shell-m, mixed	UCR-1591	4345	130		3779	4194	4608	calib 8.10 Marine20; 70±65	Barter, E. R. 1987	6445
ORA	CA-ORA-0323	423024	3714293	27	Terrace, coastal	Crystal Cove	10: 80-90 cm	80	90	Shell-m, mixed	UCR-1592	3690	130		2955	3355	3743	calib 8.10 Marine20; 70±65	Barter, E. R. 1987	6446
ORA	CA-ORA-0323	423024	3714293	27	Terrace, coastal	Crystal Cove	7: 90-100 cm	90	100	Shell-m, mixed	UCR-1593	4530	130		4034	4439	4830	calib 8.10 Marine20; 70±65	Barter, E. R. 1987	6444
ORA	CA-ORA-0337	423695	3717871	236	Hill, ridge	Newport	1: 0-20 cm	0	20	Shell-m, Argopecten	Beta-023811	1010	70		148	388	591	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6436
ORA	CA-ORA-0337	423695	3717871	236	Hill, ridge	Newport	2: 0-20 cm	0	20	Shell-m, Argopecten	Beta-023812	960	70		105	346	538	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6437
ORA	CA-ORA-0339	422375	3715543	68	Hill, ridge	Newport	13: 0-1 cm	0	1	Shell-m, Chione	Beta-023813	900	70		53	289	492	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6435
ORA	CA-ORA-0339	422375	3715543	68	Hill, ridge	Newport	14: 10-20 cm	10	20	Shell-m, Argopecten	Beta-043387	730	80		1	144	338	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6434
ORA	CA-ORA-0339	422375	3715543	68	Hill, ridge	Newport	21: 10-20 cm	10	20	Shell-m, Mytilus	Beta-043388	2780	90		1931	2244	2591	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6433
ORA	CA-ORA-0339	422375	3715543	68	Hill, ridge	Newport	9: 10-20 cm	10	20	Shell-m, Mytilus	Beta-043389	8670	110		8661	9046	9396	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6432

Appendix D-2: Archaeological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
ORA	CA-ORA-0339	422375	3715543	68	Hill, ridge	Newport	9: 20-30 cm	20	30	Shell-m, Mytilus	Beta-043390	9280	90		9498	9793	10132	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6431
ORA	CA-ORA-0340	422090	3715419	24	Hill, ridge	Newport	6: 0-1 cm	0	1	Shell-m, Argopecten	Beta-023814	1450	60		562	772	967	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6428
ORA	CA-ORA-0340	422090	3715419	24	Hill, ridge	Newport	7: 0-1 cm	0	1	Shell-m, Argopecten	Beta-023815	1290	70		442	626	845	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6429
ORA	CA-ORA-0340	422090	3715419	24	Hill, ridge	Newport	5: 10-30 cm	10	30	Shell-m, Mytilus	Beta-043391	3050	80		2305	2577	2843	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6427
ORA	CA-ORA-0340	422090	3715419	24	Hill, ridge	Newport	5: 40-50 cm	40	50	Shell-m, Pecten	Beta-043392	840	70		1	227	420	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6430
ORA	CA-ORA-0344	426361	3722826	62	Terrace, coastal	Irvine, Shady Canyon	Unit 1	30	40	Shell-m, Chione f.	Beta-124482	2570	130	0	1598	1986	2349	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2004	32751
ORA	CA-ORA-0350	425914	3721962	87	Cave, Shelter	Turtle Rockshelter	5: 0-20 cm	0	20	Shell-m, Pecten	GAU-09061	1170	90		291	529	733	calib 8.10 Marine20; 70±65	Cottrell, M. G. 1980	6424
ORA	CA-ORA-0350	425914	3721962	87	Cave, Shelter	Turtle Rockshelter	5: 30-40 cm	30	40	Shell-m, Pecten	GAU-09062	660	110		0	94	204	calib 8.10 Marine20; 70±65	Cottrell, M. G. 1980	6425
ORA	CA-ORA-0350	425914	3721962	87	Cave, Shelter	Turtle Rockshelter	5: 50-60 cm	50	60	Shell-m, Pecten	GAU-09063	1520	120		560	842	1139	calib 8.10 Marine20; 70±65	Cottrell, M. G. 1980	6423
ORA	CA-ORA-0350	425914	3721962	87	Cave, Shelter	Turtle Rockshelter	4: 40-50 cm	40	50	Shell-m, Chione	UCR-0912	915	100		30	301	515	calib 8.10 Marine20; 70±65	Cottrell, M. G. 1980	6426
ORA	CA-ORA-0365	405736	3727982	25	Terrace, coastal	Balsa Chica				Shell-m, Olivella bead	Beta-115552	5070	60		4845	5122	5374	calib 8.10 Marine20; 70±65	Vellanoweth 2001	29581
ORA	CA-ORA-0365	405736	3727982	25	Terrace, coastal	Balsa Chica				Shell-m, Olivella bead	Beta-115553	5270	50		5112	5369	5586	calib 8.10 Marine20; 70±65	Vellanoweth 2001	29582
ORA	CA-ORA-0365	405736	3727982	25	Terrace, coastal	Balsa Chica	Section 1 sump	0	100	Shell-m, marine assumed	UCLA-2553A	4010	60		3984	4289	4573	calib 8.10 Marine20; 70±65	Scientific Resource Surveys 1985	33278
ORA	CA-ORA-0365	405736	3727982	25	Terrace, coastal	Balsa Chica	Section 2	0	100	Shell-m, marine assumed	UCLA-2553B	4365	50		4465	4741	5018	calib 8.10 Marine20; 70±65	Scientific Resource Surveys 1985	33279
ORA	CA-ORA-0365	405736	3727982	25	Terrace, coastal	Balsa Chica	Section 3	0	100	Shell-m, marine assumed	UCLA-2553C	2900	40		2686	2890	3147	calib 8.10 Marine20; 70±65	Scientific Resource Surveys 1985	33280
ORA	CA-ORA-0366	405360	3727781	15	Terrace, coastal	Boisa Bay	Locus B, Unit 1, 10-20 cm	10	20	Shell-m, Chione	Beta-088151	4180	70	0	3683	3977	4279	calib 8.10 Marine20; 70±65	Strudwick, Ivan H. 1995	32705
ORA	CA-ORA-0368	403911	3731079	9		Huntington Beach	3: 10-20 cm	10	20	Shell-m, marine assumed	UCR-0639	2065	100		1127	1401	1695	calib 8.10 Marine20; 70±65	UCR 1981	6422
ORA	CA-ORA-0368	403911	3731079	9		Huntington Beach	3: 20-30 cm	20	30	Shell-m, marine assumed	UCR-0640	3720	100		3057	3394	3721	calib 8.10 Marine20; 70±65	UCR 1981	6421
ORA	CA-ORA-0368	403911	3731079	9		Huntington Beach	4: 60-70 cm	60	70	Shell-m, marine assumed	UCR-0641	4265	100		3732	4090	4425	calib 8.10 Marine20; 70±65	UCR 1981	6420
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	10S/18E: 40 cm	40	40	Shell-m, Haliotis Bone, fishhook	AA-001593	2780	100		1919	2244	2610	calib 8.10 Marine20; 70±65	Koerper, H. C. 1988	6364
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone	AA-003248	3975	75		4157	4436	4796	calib 8.10 IntCal20	Koerper, H. C. 1994	6346
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	5N/2W, 10-20 cm	10	20	Bone, fish otolith Roncador s.	AA-003748	2145	50		1281	1478	1698	calib 8.10 Marine20; 70±65	Koerper, Personal Communication	6365
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	10N/12W, 50-60 cm	50	60	Bone, fish otolith Cynoscion p.	AA-003749	6865	60		6852	7102	7327	calib 8.10 Marine20; 70±65	Koerper, Personal Communication	6330
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Atractoscion n.	AA-003750	2715	50		1909	2165	2400	calib 8.10 Marine20; 70±65	Koerper, Personal Communication	6354
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Roncador s.	AA-003751	2320	50		1440	1678	1919	calib 8.10 Marine20; 70±65	Koerper, Personal Communication	6360
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Atractoscion n.	AA-003752	3010	55		2301	2537	2753	calib 8.10 Marine20; 70±65	Koerper, Personal Communication	6351
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	0N/12W, 20-30 cm	20	30	Bone, fish otolith Roncador s.	AA-003753	4080	60		3567	3843	4123	calib 8.10 Marine20; 70±65	Koerper, Personal Communication	6345
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Atractoscion n.	AA-003754	4480	60		4082	4373	4659	calib 8.10 Marine20; 70±65	Koerper, Personal Communication	6340
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Roncador s.	AA-003755	2690	65		1854	2134	2384	calib 8.10 Marine20; 70±65	Koerper, Personal Communication	6355
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Atractoscion n.	AA-003756	4255	50		3821	4076	4353	calib 8.10 Marine20; 70±65	Koerper, Personal Communication	6343
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Roncador s.	AA-003757	2860	50		2103	2353	2642	calib 8.10 Marine20; 70±65	Koerper, Personal Communication	6353
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Atractoscion n.	AA-003758	2115	50		1261	1447	1681	calib 8.10 Marine20; 70±65	Koerper, Personal Communication	6367
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Roncador s.	AA-003759	3075	50		2352	2608	2822	calib 8.10 Marine20; 70±65	Koerper, Personal Communication	6350
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Roncador s.	AA-003760	2230	50		1349	1574	1802	calib 8.10 Marine20; 70±65	Koerper, Personal Communication	6361
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Umbrina r.	AA-003761	2015	60		1122	1345	1570	calib 8.10 Marine20; 70±65	Koerper, Personal Communication	6370
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Roncador s.	AA-003762	2410	50		1543	1787	2023	calib 8.10 Marine20; 70±65	Koerper, Personal Communication	6358
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Roncador s.	AA-003763	1870	50		972	1193	1381	calib 8.10 Marine20; 70±65	Koerper, Personal Communication	6381
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Roncador s.	AA-003764	2055	50		1177	1386	1599	calib 8.10 Marine20; 70±65	Koerper, Personal Communication	6368
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Roncador s.	AA-003765	7215	70		7236	7445	7657	calib 8.10 Marine20; 70±65	Koerper, Personal Communication	6329
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Roncador s.	AA-003766	1225	50		401	574	751	calib 8.10 Marine20; 70±65	Koerper, Personal Communication	6401

Appendix D-2: Archaeological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Cynoscion p.	AA-003767	1930	45		1048	1254	1466	calib 8.10 Marine20; 70±65	Koerper, Personal Communication	6377
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Roncadors.	AA-004309	1630	55		729	950	1168	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6392
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Roncadors.	AA-004310	2030	220		876	1373	1912	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6369
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Roncadors.	AA-004311	1820	55		929	1143	1335	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6382
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Roncadors.	AA-004312	1700	55		805	1023	1243	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6388
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Roncadors.	AA-004313	2585	55		1760	2003	2278	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6356
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Roncadors.	AA-004314	3915	60		3376	3631	3889	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6348
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Roncadors.	AA-004315	2135	55		1270	1468	1697	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6366
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Roncadors.	AA-004316	2215	80		1302	1558	1820	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6363
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Roncadors.	AA-004317	1725	55		837	1049	1265	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6387
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Atractoscion n.	AA-004318	2440	90		1526	1825	2128	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6357
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Atractoscion n.	AA-004319	4755	60		4436	4720	4979	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6338
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Roncadors.	AA-004320	7385	75		7389	7602	7839	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6327
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Atractoscion n.	AA-004322	1995	65		1088	1325	1550	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6372
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Roncadors.	AA-004323	1970	65		1066	1298	1524	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6374
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Umbrina r.	AA-004324	2015	50		1133	1345	1555	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6371
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Cynoscion p.	AA-004325	5375	70		5236	5477	5730	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6333
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Atractoscion n.	AA-004326	5060	65		4833	5110	5367	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6336
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Atractoscion n.	AA-004327	1915	55		1016	1238	1458	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6379
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, fish otolith Atractoscion n.	AA-004328	5250	70		5051	5345	5581	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6334
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	Cat. No. 616; 3N/3E: 30-40 cm	30	40	Shell-m, Megathura small square ring	Beta-073489/CAMS-014056	1470	60		586	790	1000	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994, Gibson, R. O. 2000	6411
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	Cat. No. 1442; 5N/1E: 40-50 cm	40	50	Shell-m, Megathura oval ring	Beta-073490/CAMS-014057	1630	70		709	950	1180	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994, Gibson, R. O. 2000	6407
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	Cat. No. 1979; 2N/0W: 50-60 cm	50	60	Shell-m, Mytilus disc	Beta-073491/CAMS-014058	1050	60		236	423	626	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994, Gibson, R. O. 2000	6414
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	Cat. No. 1983; 2N/0W: 60-70 cm	60	70	Shell-m, Olivella K1 bead	Beta-073492/CAMS-014059	1040	60		221	414	620	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994, Gibson, R. O. 2000	6415
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	Cat. No. 2938; 20S/3E: 60-70 cm	60	70	Shell-m, Olivella A2a bead	Beta-073493/CAMS-014060	2390	70		1505	1764	2038	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994, Gibson, R. O. 2000	6383
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	Cat. No. 2939; 20S/3E: 70-80 cm	70	80	Shell-m, Olivella B2b bead	Beta-073494/CAMS-014061	1640	80		716	961	1211	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994, Gibson, R. O. 2000	6406
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	Cat. No. 2950; 20S/3E: 80-90 cm	80	90	Shell-m, Olivella B3b bead	Beta-073495/CAMS-014062	4070	50		3565	3829	4089	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994, Gibson, R. O. 2000	6349
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	Cat. No. 3119			Shell-m, Olivella A1c bead	Beta-073496/CAMS-014063	6140	60		6053	6302	6545	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994, Gibson, R. O. 2000	6332
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	Cat. No. 3311; 5N/18E: 40-50 cm	40	50	Shell-m, Olivella B4a bead	Beta-073497/CAMS-014064	4540	60		4175	4455	4763	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994, Gibson, R. O. 2000	6347

Appendix D-2: Archaeological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	Cat. No. 3867; 45N/8E: 0-10 cm	0	10	Shell-m, Olivella B2b bead	Beta-073498/CAMS-014065	2460	60		1594	1848	2108	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994, Gibson, R. O. 2000	6380
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	Cat. No. 8001; 25S/18E: 60-70 cm	60	70	Shell-m, Olivella B4b bead	Beta-073499/CAMS-014066	5640	60		5530	5760	5993	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994, Gibson, R. O. 2000	6337
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	At Christ College site, 200 meters east of Concordia University campus			Bone, collagen alkali extraction	Beta-073500/CAMS-014067	1400	60		1177	1312	1400	calib 8.10 IntCal20	Koerper, Koerper, H. C. 1994, Koerper 2000	6399
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	30S/13E: 10-20 cm	10	20	Bone, fish otolith Porichthys m.	Beta-073501/CAMS-014068	1670	60		770	993	1225	calib 8.10 Marine20; 70±65	Koerper, Koerper, H. C. 1994, Koerper 2000	6390
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	30S/13E: 20-30 cm	20	30	Bone, fish otolith Mentichthys u.	Beta-073502/CAMS-014069	2390	60		1514	1763	2015	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6359
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	40N/12W: 0-10 cm	0	10	Bone, fish otolith Porichthys m.	Beta-073503/CAMS-014070	1320	70		476	653	878	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6400
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	40N/12W: 0-10 cm	0	10	Bone, fish otolith Cynoscion p.	Beta-073504/CAMS-014071	1610	60		710	928	1157	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6395
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	40N/12W: 10-20 cm	10	20	Bone, fish otolith Seriphus p.	Beta-073505/CAMS-014072	1470	60		586	790	1000	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6398
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	40N/12W: 20-30 cm	20	30	Bone, fish otolith Porichthys m.	Beta-073506/CAMS-014073	1790	60		900	1114	1314	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6385
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	35N/8E: 20-30 cm	20	30	Bone, fish otolith Roncadors.	Beta-073507/CAMS-014074	1620	80		689	939	1179	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6394
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	35N/8E: 40-50 cm	40	50	Bone, fish otolith Sebastes m.	Beta-073508/CAMS-014075	1950	60		1056	1276	1504	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6375
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	12: 0-10 cm	0	10	Bone, fish otolith Porichthys m.	Beta-073509/CAMS-014076	1930	60		1035	1254	1488	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6378
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	12: 10-20 cm	10	20	Bone, fish otolith Porichthys m.	Beta-073510/CAMS-014077	1630	50		734	949	1164	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6391
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	12: 30-40 cm	30	40	Bone, fish otolith Seriphus p.	Beta-073511/CAMS-014078	8250	60		8249	8493	8777	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6325
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	12: 60-70 cm	60	70	Bone, fish otolith Umbrina r.	Beta-073512/CAMS-014079	8340	60		8364	8606	8908	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6324
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	5N/18E: 70-80 cm	70	80	Bone, fish otolith Sebastes g.	Beta-073513/CAMS-014080	1940	70		1035	1265	1510	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6376
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	25S/8E: 50-60 cm	50	60	Bone, fish otolith Porichthys m.	Beta-073514/CAMS-014081	4300	60		3861	4136	4408	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6342
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	Burial			Bone-t, human dentine apatite	CAMS-017825	7310	60		7979	8110	8308	calib 8.10 IntCal20	Koerper, H. C. 1994	6328
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	Burial			Bone-t, human dentine apatite	CAMS-017826	6610	60		7422	7500	7588	calib 8.10 IntCal20	Koerper, H. C. 1994	6331
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	Burial			Bone-t, human dentine apatite	CAMS-017827	7760	60		8409	8530	8642	calib 8.10 IntCal20	Koerper, H. C. 1994	6326
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	2N/0W: 70-80 cm	70	80	Shell-m, Chione	UCIAMS-000115	2370	50		1510	1739	1982	calib 8.10 Marine20; 70±65	Koerper, Personal Communication	6384
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	2N/0W: 10-20 cm	10	20	Shell-m, Chione	UCIAMS-000117	2260	50		1373	1608	1835	calib 8.10 Marine20; 70±65	Koerper, Personal Communication	6389
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	2N/0W: 50-60 cm	50	60	Shell-m, Chione	UCIAMS-000118	1730	50		850	1054	1267	calib 8.10 Marine20; 70±65	Koerper, Personal Communication	6403
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	30S/13E: 0-10 cm	0	10	Bone, fish otolith Umbrina r.	UCIAMS-000377/CAMS-015580	2210	60		1318	1551	1788	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6362

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County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	40N/W12: 20-30 cm	20	30	Bone, fish otolith Atractoscion n.	UCIAMS-000378/CAMS-015581	4320	60		3879	4163	4427	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6341
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	35N/8E: 30-40 cm	30	40	Bone, fish otolith Roncadors.	UCIAMS-000379/CAMS-015582	4190	70		3691	3990	4288	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6344
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	5N/18E: 40-50 cm	40	50	Bone, fish otolith Atractoscion n.	UCIAMS-000380/CAMS-015583	1750	70		841	1074	1292	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6386
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	15S/28E: 50-60 cm	50	60	Bone, fish otolith Cynoscion p.	UCIAMS-000381/CAMS-015584	2880	70		2110	2382	2679	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6352
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	35N/8E: 60-70 cm	60	70	Bone, fish otolith Porichthys m.	UCIAMS-000382/CAMS-015585	1990	60		1092	1319	1539	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6373
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	2N/0W: 30-40 cm	30	40	Shell-m, Chione	UCIAMS-010016	1670	50		776	993	1212	calib 8.10 Marine20; 70±65	Koerper, Personal Communication	6404
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	0N/8E: 0-10 cm	0	10	Shell-m, Chione	UCR-1804	1620	85		683	940	1185	calib 8.10 Marine20; 70±65	UCR 1986, Koerper, H. C. 1986	6408
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	0N/8E: 30-40 cm	30	40	Shell-m, Chione	UCR-1805	5210	100		4952	5291	5581	calib 8.10 Marine20; 70±65	UCR 1986, Koerper, H. C. 1986	6339
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	0N/8E: 70 cm-sterile	70	70	Shell-m, Chione	UCR-1806	5780	100		5609	5915	6199	calib 8.10 Marine20; 70±65	UCR 1986, Koerper, H. C. 1986	6335
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	5N/13E: 20-30 cm; Fea. 1	20	30	Shell-m, Haliotis dish	UCR-2104	1570	80		658	886	1134	calib 8.10 Marine20; 70±65	Ericson, J. E. 1989, Koerper	6409
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	5S/3E: 10-20 cm	10	20	Shell-m, Chione	UCR-2105	1370	50		525	697	894	calib 8.10 Marine20; 70±65	Ericson, J. E. 1989, Koerper	6412
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	5S/3E: 30-40 cm	30	40	Shell-m, Chione	UCR-2106	1650	70		732	971	1208	calib 8.10 Marine20; 70±65	Ericson, J. E. 1989, Koerper	6405
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	5S/3E: 50-60 cm	50	60	Shell-m, Chione	UCR-2107	1130	60		298	495	662	calib 8.10 Marine20; 70±65	Ericson, J. E. 1989, Koerper	6413
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	5S/3E: 70-80 cm	70	80	Shell-m, Chione	UCR-2108	1500	50		634	816	1025	calib 8.10 Marine20; 70±65	Ericson, J. E. 1989, Koerper	6410
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	25N/12W: 10-20 cm	10	20	Shell-m, Chione	UCR-2293	2120	60		1253	1453	1692	calib 8.10 Marine20; 70±65	Ericson, J. E. 1989	6397
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	25N/12W: 80-90 cm	80	90	Shell-m, Chione	UCR-2294	2135	50		1275	1467	1692	calib 8.10 Marine20; 70±65	Ericson, J. E. 1989	6396
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	3S/5.5E: 20-30 cm	20	30	Shell-m, Haliotis Bone, fishhook	UCR-3256/CAMS-012350	2200	70		1300	1540	1787	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6393
ORA	CA-ORA-0378	425198	3724175	57	Hill, ridge	Turtle Rock	0N/8E: 30-40 cm	30	40	Shell-m, Haliotis Bone, fishhook	UCR-3257/CAMS-012351	1770	60		882	1094	1300	calib 8.10 Marine20; 70±65	Koerper, H. C. 1994	6402
ORA	CA-ORA-0379	425920	3723458	75	Cave, Shelter	Sand Canyon Wash	Rockshelter 1, TT5: 40 cm	40	40	Charcoal	LJ-5117	240	40	-26.1	1	282	431	calib 8.10 IntCal20	Douglas, R. 1980	6323
ORA	CA-ORA-0379	425920	3723458	75	Hill, ridge	Sand Canyon Wash	open midden locus at habitation site, Unit 6, 40 to 50 cm depth	40	50	Shell-m, Aequipecten c.	LJ-5118	1610	40	0.9	721	927	1134	calib 8.10 Marine20; 70±65	Douglas, R. 1980	6322
ORA	CA-ORA-0383	426465	3722846	72	Hill, ridge	Invine, Shady Canyon	Unit 1	30	40	Shell-m, Argopecten sp.	Beta-124483	1420	100	0	508	748	998	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2004	32752
ORA	CA-ORA-0386	426123	3724131	88	Hill, ridge		50S/10W: 0-20 cm	0	20	Shell-m, mixed	UCR-1663	6895	210		6630	7115	7565	calib 8.10 Marine20; 70±65	UCR 1986	6320
ORA	CA-ORA-0386	426123	3724131	88	Hill, ridge		62S/22W: 40-60 cm	40	60	Shell-m, mixed	UCR-1664	8960	260		8700	9396	10128	calib 8.10 Marine20; 70±65	UCR 1986	6319
ORA	CA-ORA-0386	426123	3724131	88	Hill, ridge		40S/10W: 80-100 cm	80	100	Shell-m, mixed	UCR-1665	6270	198		5967	6446	6930	calib 8.10 Marine20; 70±65	UCR 1986	6321
ORA	CA-ORA-0438	441092	3727924	352			6, Fea. 1: 20-40 cm	20	40	Charcoal	Beta-003916	300	60		1	376	498	calib 8.10 IntCal20	Kirkish, A. 1982, Schroth, A. 1983	6307
ORA	CA-ORA-0482	420673	3721320	56	Terrace, coastal	Invine, Ford Rd.	Uncorrected date 1160 +/-80 corrected using -0.5 0/00	30	40	Shell-m, Chione	Beta-065131	1559	86		645	875	1133	calib 8.10 Marine20; 70±65	Bonner, Wayne H. 1996	32576
ORA	CA-ORA-0482	420673	3721320	56	Terrace, coastal	Invine, Ford Rd.		20	30	Shell-m, Neverita r.	Beta-073889	2130	80		1231	1466	1729	calib 8.10 Marine20; 70±65	Bonner, Wayne H. 1996	32664
ORA	CA-ORA-0482	420673	3721320	56	Terrace, coastal	Invine, Ford Rd.		40	50	Shell-m, Chione	Beta-073890	1770	90		829	1093	1335	calib 8.10 Marine20; 70±65	Bonner, Wayne H. 1996	32665
ORA	CA-ORA-0482	420673	3721320	56	Terrace, coastal	Invine, Ford Rd.		60	70	Shell-m, Chione	Beta-073891	4330	70		3874	4176	4458	calib 8.10 Marine20; 70±65	Bonner, Wayne H. 1996	32666
ORA	CA-ORA-0499	428845	3722989	92	Hill, ridge	Invine, Area 17	Unit 3	60	70	Shell-m, marine	Beta-157850	610	60	0	5	65	125	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2001	32841
ORA	CA-ORA-0499	428845	3722989	92	Hill, ridge	Invine, Area 17	Unit 3	20	30	Shell-m, marine	Beta-157851	3460	40	1.4	2843	3075	3320	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2001	32842
ORA	CA-ORA-0499	428845	3722989	92	Hill, ridge	Invine, Area 17	Unit 3	40	50	Shell-m, marine	Beta-157852	710	40	-0.05	1	119	273	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2001	32843
ORA	CA-ORA-0508	423543	3726776	15	Floodplain	Invine, Tustin Plain	Loc. C; 2: 34-64 cm	34	64	Shell-m, Chione	LJ-4810	1900	50	0.7	994	1222	1418	calib 8.10 Marine20; 70±65	Radiocarbon 1984	6298
ORA	CA-ORA-0508	423543	3726776	15	Floodplain	Invine, Tustin Plain	Loc. AD, 2: 70-80 cm	70	80	Shell-m, Aequipecten c.	LJ-4811	2610	70	1.8	1768	5085	2308	calib 8.10 Marine20; 70±65	Radiocarbon 1984	6296
ORA	CA-ORA-0508	423543	3726776	15	Floodplain	Invine, Tustin Plain	Loc. AB, 2: 60-70 cm	60	70	Shell-m, Aequipecten c.	LJ-4812	2480	70	1.4	1598	1873	2145	calib 8.10 Marine20; 70±65	Radiocarbon 1984	6297
ORA	CA-ORA-0518	417700	3720412	8		Coney Island	0-10 cm	0	10	Shell-m, Chione	UCR-0514	725	140		1	168	410	calib 8.10 Marine20; 70±65	Schroth, A. 1983	6295
ORA	CA-ORA-0521	435273	3732010	401	Hill, ridge		A. 30-40 cm	30	40	Shell-m, marine assumed	UCLA-2143	1100	80		256	467	666	calib 8.10 Marine20; 70±65	Schroth, A. 1983	6294
ORA	CA-ORA-0545	433875	3728621	138	Fan	Tomato Springs	PA6-08, hearth or cooking feature	300	300	Charcoal, wood	Beta-210228	3030	40	-25.3	3078	3234	3357	calib 8.10 IntCal20	Archer, Gavin 2007	32908
ORA	CA-ORA-0548	428655	3735360	90	Hill, ridge	Tustin, Peters Canyon	Peters Canyon 3 shell site, redeposited			Shell-m, marine	Beta-033082	1260	90		727	989	1252	calib 8.10 Marine20; 70±65	Jertberg, Patricia 1990	32529
ORA	CA-ORA-0555	403814	3730852	7		Harbor Bluff, Marine View	N52/E10: 120-130 cm	120	130	Shell-m, Pecten and Chione	UCLA-2103A	2400	60		1526	1775	2029	calib 8.10 Marine20; 70±65	Schroth, A. 1979, Drover, C. E. 1979	6290
ORA	CA-ORA-0555	403814	3730852	7		Harbor Bluff, Marine View	S38/E13: 20-30 cm	20	30	Shell-m, Pecten and Chione	UCLA-2103B	155	50		0	10	60	calib 8.10 Marine20; 70±65	Schroth, A. 1979, Drover, C. E. 1979	6293

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ORA	CA-ORA-0555	403814	3730852	7		Harbor Bluff, Marine View	N22/E33: 60-70 cm	60	70	Shell-m, Pecten and Chione	UCLA-2103C	1865	60		957	1188	1387	calib 8.10 Marine20; 70±65	Schroth, A. 1979, Drover, C. E. 1979	6291
ORA	CA-ORA-0555	403814	3730852	7		Harbor Bluff, Marine View	S5/E26: 110-120 cm	110	120	Shell-m, Pecten and Chione	UCLA-2103D	1230	60		395	578	770	calib 8.10 Marine20; 70±65	Schroth, A. 1979, Drover, C. E. 1979	6292
ORA	CA-ORA-0572	409104	3751183	73	Terrace, coastal		Grading feature			Bone	Beta-005039	700	60		554	650	727	calib 8.10 IntCal20	Schroth, A. 1983	6285
ORA	CA-ORA-0572	409104	3751183	73	Hill, ridge		Near grading feature			Shell-m, Pecten	Beta-005040	490	60		0	36	96	calib 8.10 Marine20; 70±65	Schroth, A. 1983	6286
ORA	CA-ORA-0575	420247	3722572	15	Floodplain	Bonita Creek	3: 50-60 cm	50	60	Shell-m, marine assumed	LJ-3483	2240	60		1347	1586	1824	calib 8.10 Marine20; 70±65	Linick, T. W. 1977	6284
ORA	CA-ORA-0616	423643	3719107	218	Hill, ridge	Coyote Canyon	Surface collection	0	2	Shell-m, Chione	Beta-100178	1240	70	0	725	968	1215	calib 8.10 Marine20; 70±65	Strudwick, Ivan H. 1997	32737
ORA	CA-ORA-0645	424764	3743433	184			S28/W8: 30-40 cm	30	40	Shell-m, Haliotis	UGa-01771	3410	85		2745	3015	3309	calib 8.10 Marine20; 70±65	Schroth, A. 1983	6270
ORA	CA-ORA-0660	420080	3716377	17	Hill, ridge	Newport	26: 0-20 cm	0	20	Shell-m, Mytilus	Beta-035422	4930	80		4659	4956	5272	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6268
ORA	CA-ORA-0660	420080	3716377	17	Hill, ridge	Newport	26: 60-80 cm	60	80	Shell-m, Mytilus	Beta-035423	5820	90		5677	5961	6243	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6258
ORA	CA-ORA-0660	420080	3716377	17	Hill, ridge	Newport	26: 100-120 cm	100	120	Shell-m, Mytilus	Beta-035424	5230	90		4988	5318	5585	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6261
ORA	CA-ORA-0660	420080	3716377	17	Hill, ridge	Newport	26: 140-160 cm	140	160	Shell-m, Mytilus	Beta-035425	5110	100		4841	5165	5468	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6264
ORA	CA-ORA-0660	420080	3716377	17	Hill, ridge	Newport	26: 180-200 cm	180	200	Shell-m, Mytilus	Beta-035426	5550	90		5386	5668	5936	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6259
ORA	CA-ORA-0660	420080	3716377	17	Hill, ridge	Newport	26: 20-40 cm	20	40	Shell-m, Mytilus	UCIAMS-000200	5130	100		4852	5189	5486	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6263
ORA	CA-ORA-0660	420080	3716377	17	Hill, ridge	Newport	26: 40-60 cm	40	60	Shell-m, Mytilus	UCIAMS-000201	4940	80		4677	4968	5283	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6267
ORA	CA-ORA-0660	420080	3716377	17	Hill, ridge	Newport	26: 80-100 cm	80	100	Shell-m, Mytilus	UCIAMS-000202	5130	100		4852	5189	5486	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6262
ORA	CA-ORA-0660	420080	3716377	17	Hill, ridge	Newport	26: 120-140 cm	120	140	Shell-m, Mytilus	UCIAMS-000203	5040	100		4789	5086	5427	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6266
ORA	CA-ORA-0660	420080	3716377	17	Hill, ridge	Newport	26: 160-180 cm	160	180	Shell-m, Mytilus	UCIAMS-000204	5360	90		5162	5460	5744	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6260
ORA	CA-ORA-0660	420080	3716377	17	Hill, ridge	Newport	25: 40-60 cm	40	60	Shell-m, Chione	UCIAMS-000205	4230	100		3701	4043	4393	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6269
ORA	CA-ORA-0660	420080	3716377	17	Hill, ridge	Newport	53: 72 cm (Sur)	72	72	Shell-m, Haliotis	UCIAMS-000275	5040	40		4844	5088	5308	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6265
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	159: 0-20 cm	0	20	Shell-m, Argopecten	Beta-023816	470	60		0	32	92	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6243
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	234: 20-40 cm	20	40	Shell-m, Argopecten	Beta-023817	700	70		1	123	293	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6202
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	145: 20-40 cm	20	40	Shell-m, Argopecten	Beta-023818	810	60		1	198	392	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6239
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	145: 40-60 cm	40	60	Shell-m, Pecten and Chione	Beta-023819	850	60		11	237	431	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6233
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	287: 10-20 cm	10	20	Shell-m, Chione	Beta-023820	460	50		0	30	80	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6245
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	287: 30-40 cm	30	40	Shell-m, Chione	Beta-023821	800	60		1	190	384	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6241
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	287: 50-60 cm	50	60	Shell-m, Chione	Beta-023822	630	60		28	78	128	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6210
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	243: 0-20 cm	0	20	Shell-m, Chione	Beta-023993	850	90		1	238	442	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6234
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	289: 20-30 cm	20	30	Shell-m, Chione	Beta-023994	400	50		0	12	62	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6248
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	289: 40-50 cm	40	50	Shell-m, Argopecten	Beta-023995	250	90		0	10	70	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6257
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	290: 10-20 cm	10	20	Shell-m, Chione and Pecten	Beta-023996	610	60		5	65	125	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6214
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	291: 10-30 cm	10	30	Shell-m, Chione	Beta-023997	450	70		0	28	98	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6246
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	111: 20-30 cm	20	30	Charcoal	Beta-036714	480	70		319	514	645	calib 8.10 IntCal20	Mason, Roger D. 1994	6192
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	453: 15-30 cm	15	30	Shell-m, Haliotis cracherodii	Beta-041962	550	70		0	44	114	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6230
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	168: 20-30 cm	20	30	Charcoal, wood	Beta-041963	530	90		328	550	671	calib 8.10 IntCal20	Mason, Roger D. 1994	6188
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	166: 20-30 cm	20	30	Charcoal, wood	Beta-041964	480	60		328	516	640	calib 8.10 IntCal20	Mason, Roger D. 1994	6191
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	393: 10-20 cm	10	20	Charcoal, wood	Beta-041965	730	50		560	673	732	calib 8.10 IntCal20	Mason, Roger D. 1994	6181
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	588: 40-50 cm	40	50	Charcoal, wood	Beta-041966	1050	70		788	958	1175	calib 8.10 IntCal20	Mason, Roger D. 1994	6172
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	586: 30-40 cm	30	40	Charcoal, wood	Beta-041967	1110	70		833	1025	1244	calib 8.10 IntCal20	Mason, Roger D. 1994	6171
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	593: 20-30 cm	20	30	Charcoal, wood	Beta-041968	460	50		328	506	623	calib 8.10 IntCal20	Mason, Roger D. 1994	6195
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	217: 50-60 cm	50	60	Charcoal	Beta-042864	730	90		537	674	899	calib 8.10 IntCal20	Mason, Roger D. 1994	6180
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	60: 10-20 cm	10	20	Charcoal	Beta-042865	470	60		320	509	629	calib 8.10 IntCal20	Mason, Roger D. 1994	6194
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	137: 30-40 cm	30	40	Charcoal	Beta-042866	570	80		492	586	673	calib 8.10 IntCal20	Mason, Roger D. 1994	6186
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	31: 20-30 cm	20	30	Charcoal	Beta-042867	710	80		541	657	775	calib 8.10 IntCal20	Mason, Roger D. 1994	6182
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	514: 30-40 cm	30	40	Charcoal	Beta-042868	440	80		309	471	625	calib 8.10 IntCal20	Mason, Roger D. 1994	6198
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	514: 30-40 cm	30	40	Charcoal	Beta-042869	610	90		496	599	719	calib 8.10 IntCal20	Mason, Roger D. 1994	6184
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	514: 30-40 cm	30	40	Charcoal	Beta-042870	910	70		687	822	928	calib 8.10 IntCal20	Mason, Roger D. 1994	6175
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	393: 10-20 cm	10	20	Charcoal	Beta-042871	1330	100		978	1229	1403	calib 8.10 IntCal20	Mason, Roger D. 1994	6169
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	204: 0-10 cm	0	10	Charcoal	Beta-042872	460	70		315	497	629	calib 8.10 IntCal20	Mason, Roger D. 1994	6196
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	91: 86-91	86	91	Charcoal, wood	Beta-044113	1040	50		797	947	1060	calib 8.10 IntCal20	Mason, Roger D. 1994	5868
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	105: 10-20 cm	10	20	Charcoal, wood	Beta-044925	510	90		319	534	665	calib 8.10 IntCal20	Mason, Roger D. 1994	6189
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	304: 15-20 cm	15	20	Shell-m, Chione	Beta-044926	370	60		0	10	85	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6249
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	508: 110-120 cm	110	120	Shell-m, Mytilus	Beta-044927	4240	80		3754	4056	4380	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6166
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	616: 0-10 cm	0	10	Shell-m, Chione	Beta-044928	1110	60		285	477	651	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6197
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	18: 0-20 cm	0	20	Shell-m, Chione	Beta-046072	1250	60		415	593	786	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5871
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	15: 10-20 cm	10	20	Shell-m, Chione	Beta-046073	780	60		1	174	365	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5873

Appendix D-2: Archaeological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	15: 10-20 cm	10	20	Charcoal	Beta-046074	630	50		545	604	668	calib 8.10 IntCal20	Mason, Roger D. 1994	5870
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	6: 60-70 cm	60	70	Shell-m, marine	Beta-046075	1080	60		265	450	636	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5874
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	16: 62 cm	62	62	Charcoal	Beta-046076	1130	50		931	1033	1176	calib 8.10 IntCal20	Mason, Roger D. 1994	5867
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	16: 60-70 cm	60	70	Shell-m, Pecten	Beta-046077	1070	70		244	440	643	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5875
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	51: 10-20 cm	10	20	Shell-m, Chione	Beta-046078	810	60		1	198	392	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5878
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	51: 25-30 cm	25	30	Charcoal	Beta-046079	2360	80		2156	2424	2707	calib 8.10 IntCal20	Mason, Roger D. 1994	5866
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	25: 20-30 cm	20	30	Shell-m, Chione	Beta-046080	1380	70		515	708	915	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5869
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	15: 40-50 cm	40	50	Shell-m, Chione	Beta-046081	1110	50		293	478	644	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5872
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	15: 70-80 cm	70	80	Shell-m, Chione	Beta-046082	970	70		115	354	546	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5876
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	15: 110-120 cm	110	120	Shell-m, Mytilus	Beta-046083	880	70		35	268	475	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5877
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	202: 20-30 cm	20	30	Charcoal, wood	CAMS-003774	280	60		1	354	492	calib 8.10 IntCal20	Mason, Roger D. 1994	6213
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	307: 10-20 cm	10	20	Charcoal, wood	CAMS-003775	360	70		290	403	521	calib 8.10 IntCal20	Mason, Roger D. 1994	6204
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	307: 10-20 cm	10	20	Charcoal, wood	CAMS-003776	350	80		1	395	530	calib 8.10 IntCal20	Mason, Roger D. 1994	6206
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	307: 10-20 cm	10	20	Charcoal, wood	CAMS-003777	290	60		1	368	495	calib 8.10 IntCal20	Mason, Roger D. 1994	6212
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	305: 10-20 cm	10	20	Charcoal, wood	CAMS-003778	1160	60		933	1074	1259	calib 8.10 IntCal20	Mason, Roger D. 1994	6170
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	472: 10-20 cm	10	20	Charcoal, wood	CAMS-003779	810	60		653	726	903	calib 8.10 IntCal20	Mason, Roger D. 1994	6178
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	335: 10-20 cm	10	20	Charcoal, wood	CAMS-003780	480	60		328	516	640	calib 8.10 IntCal20	Mason, Roger D. 1994	6190
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	99: 10-20 cm	10	20	Charcoal, wood	CAMS-003781	290	60		1	368	495	calib 8.10 IntCal20	Mason, Roger D. 1994	6211
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	99: 10-20 cm	10	20	Charcoal, wood	CAMS-003782	360	60		304	404	508	calib 8.10 IntCal20	Mason, Roger D. 1994	6203
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	143: 10-20 cm	10	20	Charcoal, wood	CAMS-003783	220	70		1	206	440	calib 8.10 IntCal20	Mason, Roger D. 1994	6237
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	307: 10-20 cm	10	20	Shell-m, Haliotis cracherodii	CAMS-003888	890	70		45	279	484	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6222
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	305: 10-20 cm	10	20	Shell-m, Haliotis cracherodii	CAMS-003889	1490	60		619	808	1031	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6176
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	472: 10-20 cm	10	20	Shell-m, Haliotis cracherodii	CAMS-003890	880	70		35	268	475	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6225
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	472: 10-20 cm	10	20	Shell-m, Haliotis cracherodii	CAMS-003891	1000	60		148	380	555	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6205
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	99: 10-20 cm	10	20	Shell-m, Haliotis cracherodii	CAMS-003892	860	70		14	247	447	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6231
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	99: 10-20 cm	10	20	Shell-m, Haliotis cracherodii	CAMS-003893	870	60		33	258	461	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6227
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	99: 10-20 cm	10	20	Shell-m, Haliotis cracherodii	CAMS-003894	810	60		1	198	392	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6238
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	143: 10-20 cm	10	20	Shell-m, Haliotis cracherodii	CAMS-003895	880	60		44	269	472	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6224
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	202: 20-30 cm	20	30	Shell-m, Haliotis fulgens	CAMS-003897	900	60		62	290	487	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6219
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	307: 10-20 cm	10	20	Shell-m, Haliotis cracherodii	CAMS-003898	880	60		44	269	472	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6223
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	307: 10-20 cm	10	20	Shell-m, Haliotis cracherodii	CAMS-003899	890	60		53	280	480	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6221
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	307: 10-20 cm	10	20	Shell-m, Haliotis cracherodii	CAMS-003900	850	60		11	237	431	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6232
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	99: 10-20 cm	10	20	Shell-m, Haliotis cracherodii	CAMS-003902	870	90		8	258	462	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6229
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	202: 20-30 cm	20	30	Shell-m, Haliotis fulgens	CAMS-003903	930	60		89	320	508	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6216
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	307: 10-20 cm	10	20	Shell-m, Haliotis cracherodii	CAMS-003904	990	60		143	372	548	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6208
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	335: 10-20 cm	10	20	Shell-m, Haliotis cracherodii	CAMS-003905	900	60		62	290	487	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6218
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	335: 10-20 cm	10	20	Shell-m, Haliotis cracherodii	CAMS-003907	990	60		143	372	548	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6207
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	305: 10-20 cm	10	20	Shell-m, Haliotis cracherodii	CAMS-003908	830	60		1	216	407	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6236
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	307: 10-20 cm	10	20	Shell-m, Haliotis cracherodii	CAMS-003909	940	60		99	330	515	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6215
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	143: 10-20 cm	10	20	Shell-m, Haliotis cracherodii	CAMS-003910	830	60		1	216	407	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6235
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	305: 10-20 cm	10	20	Shell-m, Haliotis cracherodii	CAMS-003916	870	70		24	258	462	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6228
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	305: 10-20 cm	10	20	Shell-m, Haliotis cracherodii	CAMS-003917	1610	80		685	929	1171	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6173
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	305: 10-20 cm	10	20	Shell-m, Haliotis cracherodii	CAMS-003918	1470	70		571	790	1007	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6177
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	93: 10-15 cm	10	15	Charcoal	UCIAMS-000190	990	80		731	880	1058	calib 8.10 IntCal20	Mason, Roger D. 1994	6174
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	93: 15-25 cm	15	25	Charcoal	UCIAMS-000191	670	80		531	626	726	calib 8.10 IntCal20	Mason, Roger D. 1994	6183

Appendix D-2: Archaeological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	93: 25-30 cm	25	30	Charcoal	UCIAMS-000192	550	70		494	570	662	calib 8.10 IntCal20	Mason, Roger D. 1994	6187
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	93: 30-40 cm	30	40	Charcoal	UCIAMS-000193	795	70		567	720	905	calib 8.10 IntCal20	Mason, Roger D. 1994	6179
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	93: 10-15 cm	10	15	Shell-m, Argospecten	UCIAMS-000194	560	70		0	46	116	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6226
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	113: 20-30 cm	20	30	Charcoal	UCIAMS-000195	3170	80		3177	3385	3565	calib 8.10 IntCal20	Mason, Roger D. 1994	6167
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	113: 20-30 cm	20	30	Charcoal	UCIAMS-000196	260	80		1	301	493	calib 8.10 IntCal20	Mason, Roger D. 1994	6220
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	112: 10-20 cm	10	20	Shell-m, Ostrea	UCIAMS-000197	430	70		0	22	92	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6247
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	112: 10-20 cm	10	20	Shell-m, Argospecten	UCIAMS-000198	2500	80		1601	1898	2191	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6168
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	217: 50-60 cm	50	60	Shell-m, Haliotis	UCIAMS-000199	580	70		0	50	120	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6217
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	70: 10-20 cm	10	20	Charcoal	UCIAMS-000206	0	0					N/A - Modern	Mason, Roger D. 1994	6256
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	15: 20-30 cm	20	30	Charcoal	UCIAMS-000207	0	0					N/A - Modern	Mason, Roger D. 1994	6255
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	105: 10-20 cm	10	20	Charcoal	UCIAMS-000208	0	0					N/A - Modern	Mason, Roger D. 1994	6254
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	105: 10-20 cm	10	20	Shell-m, Chione	UCIAMS-000209	0	0					N/A - Modern	Mason, Roger D. 1994	6253
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	101: 10-20 cm	10	20	Charcoal	UCIAMS-000210	0	0					N/A - Modern	Mason, Roger D. 1994	6252
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	102: 10-20 cm	10	20	Shell-m, Haliotis	UCIAMS-000211	460	80		0	30	110	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6244
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	76: 10-20 cm	10	20	Charcoal	UCIAMS-000212	0	0					N/A - Modern	Mason, Roger D. 1994	6251
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	166: 20-30 cm	20	30	Charcoal	UCIAMS-000213	0	0					N/A - Modern	Mason, Roger D. 1994	6250
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	156: 10-20 cm	10	20	Shell-m, Haliotis cracherodii	UCIAMS-000217	1260	60		422	601	794	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6185
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	1128: 0-40 cm	0	40	Shell-m, Haliotis cracherodii	UCIAMS-000218	730	50		1	135	297	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6200
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	293: 20-30 cm	20	30	Shell-m, Haliotis cracherodii	UCIAMS-000219	490	40		0	35	75	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6242
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	513: 30-40 cm	30	40	Shell-m, Haliotis cracherodii	UCIAMS-000220	650	40		35	85	135	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6209
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	238: 20-30 cm	20	30	Shell-m, Haliotis cracherodii	UCIAMS-000221	735	70		1	144	328	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6201
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	144: 20-30 cm	20	30	Shell-m, Haliotis cracherodii	UCIAMS-000222	500	65		0	36	101	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6240
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	305: 10-20 cm	10	20	Shell-m, Haliotis cracherodii	UCIAMS-000223	1140	85		277	503	701	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6193
ORA	CA-ORA-0662	422104	3717462	210	Hill, ridge	Newport	99: 10-20 cm	10	20	Shell-m, Haliotis cracherodii	UCIAMS-000224	740	70		1	147	334	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6199
ORA	CA-ORA-0663	421170	3718233	151	Dune, coastal	Newport	8: 0-1 cm	0	1	Shell-m, Chione	Beta-023824	1030	70		187	405	616	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6164
ORA	CA-ORA-0663	421170	3718233	151	Dune, coastal	Newport	27: 10-20 cm	0	20	Shell-m, Chione	Beta-038428	1090	60		272	459	641	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6163
ORA	CA-ORA-0663	421170	3718233	151	Dune, coastal	Newport	27: 20-30 cm	20	30	Shell-m, Chione	Beta-038429	990	50		155	373	540	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6165
ORA	CA-ORA-0664	420716	3717357	92	Dune, coastal	Newport	52: 10-20 cm	10	20	Shell-m, Chione	Beta-036923	4110	80		3571	3884	4198	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6154
ORA	CA-ORA-0664	420716	3717357	92	Dune, coastal	Newport	52: 40-50 cm	40	50	Shell-m, Chione	Beta-036924	4020	90		3448	3765	4085	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6155
ORA	CA-ORA-0664	420716	3717357	92	Dune, coastal	Newport	52: 60-70 cm	60	70	Shell-m, Mytilus	Beta-036925	4400	70		3966	4267	4558	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6152
ORA	CA-ORA-0664	420716	3717357	92	Dune, coastal	Newport	25: 10-20 cm	0	20	Shell-m, Chione	Beta-036926	3750	90		3125	3431	3750	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6160
ORA	CA-ORA-0664	420716	3717357	92	Dune, coastal	Newport	25: 30-40 cm	30	40	Shell-m, Chione	Beta-036927	3930	70		3378	3650	3925	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6158
ORA	CA-ORA-0664	420716	3717357	92	Dune, coastal	Newport	25: 70-80 cm	70	80	Shell-m, Chione	Beta-036928	3670	70		3053	3331	3605	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6161
ORA	CA-ORA-0664	420716	3717357	92	Dune, coastal	Newport	42: 40-50 cm	40	50	Shell-m, Chione	Beta-036929	3980	70		3432	3713	3995	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6157
ORA	CA-ORA-0664	420716	3717357	92	Dune, coastal	Newport	42: 60-70 cm	60	70	Shell-m, Chione	Beta-036930	3790	70		3210	3480	3761	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6159
ORA	CA-ORA-0664	420716	3717357	92	Dune, coastal	Newport	42: 80-90 cm	80	90	Shell-m, Chione	Beta-036931	3990	70		3441	3726	4009	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6156
ORA	CA-ORA-0664	420716	3717357	92	Dune, coastal	Newport	52: 20-30 cm	20	30	Shell-m, Chione	Beta-036932	4180	90		3642	3977	4310	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6153
ORA	CA-ORA-0664	420716	3717357	92	Dune, coastal	Newport	89: 10-20 cm	10	20	Shell-m, Chione	Beta-036933	3490	110		2774	3110	3426	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6162
ORA	CA-ORA-0664	420716	3717357	92	Dune, coastal	Newport	89: 50-60 cm	50	60	Shell-m, Mytilus	Beta-036934	4950	100		4640	4981	5305	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6149
ORA	CA-ORA-0664	420716	3717357	92	Dune, coastal	Newport	89: 67-70 cm	67	70	Shell-m, Mytilus	Beta-036935	4710	140		4232	4665	5103	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6150
ORA	CA-ORA-0664	420716	3717357	92	Dune, coastal	Newport	89: 70-80 cm	70	80	Shell-m, Mytilus	Beta-036936	4630	100		4215	4570	4881	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6151
ORA	CA-ORA-0666	421173	3716569	63	Dune, coastal	Newport	41: 30-40 cm	30	40	Shell-m, Mytilus	Beta-036715	4310	100		3812	4149	4503	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6140
ORA	CA-ORA-0666	421173	3716569	63	Dune, coastal	Newport	41: 40-50 cm	40	50	Shell-m, Mytilus	Beta-036716	4410	80		3961	4280	4592	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6139
ORA	CA-ORA-0666	421173	3716569	63	Dune, coastal	Newport	15: 30-40 cm	30	40	Shell-m, Chione	Beta-036717	4700	90		4333	4655	4968	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6138

Appendix D-2: Archaeological Radiocarbon Dates Compiled from Study Area

County	Site	Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
ORA	CA-ORA-0666	421173	3716569	63	Dune, coastal	Newport	15: 50-60 cm		50	60	Shell-m, Mytilus	Beta-036718	4720	90		4359	4678	4998	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6137
ORA	CA-ORA-0667	421361	3716355	51	Dune, coastal	Newport	27: 20-30 cm		20	30	Shell-m, Mytilus	Beta-023827	4510	100		4080	4414	4780	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6124
ORA	CA-ORA-0667	421361	3716355	51	Dune, coastal	Newport	27: 40-60 cm		40	60	Shell-m, Mytilus	Beta-023828	4610	80		4242	4547	4830	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6120
ORA	CA-ORA-0667	421361	3716355	51	Dune, coastal	Newport	27: 60-80 cm		60	80	Shell-m, Mytilus	Beta-023829	4580	90		4185	4507	4820	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6121
ORA	CA-ORA-0667	421361	3716355	51	Dune, coastal	Newport	161: 10-20 cm		10	20	Shell-m, Mytilus	UCIAMS-000149	4630	60		4305	4573	4827	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6119
ORA	CA-ORA-0667	421361	3716355	51	Dune, coastal	Newport	161: 20-30 cm		20	30	Shell-m, Mytilus	UCIAMS-000150	4520	75		4132	4428	4763	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6123
ORA	CA-ORA-0667	421361	3716355	51	Dune, coastal	Newport	161: 30-40 cm		30	40	Shell-m, Mytilus	UCIAMS-000151	4450	60		4050	4332	4622	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6126
ORA	CA-ORA-0667	421361	3716355	51	Dune, coastal	Newport	161: 40-50 cm		40	50	Shell-m, Mytilus	UCIAMS-000152	4800	80		4452	4779	5094	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6118
ORA	CA-ORA-0667	421361	3716355	51	Dune, coastal	Newport	161: 50-60 cm		50	60	Shell-m, Mytilus	UCIAMS-000153	4400	75		3958	4267	4568	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6127
ORA	CA-ORA-0667	421361	3716355	51	Dune, coastal	Newport	161: 60-70 cm		60	70	Shell-m, Mytilus	UCIAMS-000154	4930	80		4659	4956	5272	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6113
ORA	CA-ORA-0667	421361	3716355	51	Dune, coastal	Newport	161: 70-80 cm		70	80	Shell-m, Mytilus	UCIAMS-000155	4840	85		4517	4835	5182	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6114
ORA	CA-ORA-0667	421361	3716355	51	Dune, coastal	Newport	161: 80-90 cm		80	90	Shell-m, Mytilus	UCIAMS-000156	5025	60		4815	5070	5316	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6112
ORA	CA-ORA-0667	421361	3716355	51	Dune, coastal	Newport	161: 90-100 cm		90	100	Shell-m, Mytilus	UCIAMS-000157	4800	65		4484	4778	5069	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6115
ORA	CA-ORA-0667	421361	3716355	51	Dune, coastal	Newport	2767: 44 cm		44	44	Shell-m, Haliotis cracherodii	UCIAMS-000216	4570	50		4241	4495	4779	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6122
ORA	CA-ORA-0667	421361	3716355	51	Dune, coastal	Newport	213: 74 cm		74	74	Shell-m, Haliotis rufescens	UCIAMS-000226	3870	100		3256	3579	3907	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6134
ORA	CA-ORA-0667	421361	3716355	51	Dune, coastal	Newport	293: 44 cm		44	44	Shell-m, Haliotis fulgens	UCIAMS-000227	3950	100		3355	3677	4012	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6132
ORA	CA-ORA-0667	421361	3716355	51	Dune, coastal	Newport	2335: 73 cm		73	73	Shell-m, Haliotis fulgens	UCIAMS-000228	4800	70		4473	4778	5077	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6117
ORA	CA-ORA-0667	421361	3716355	51	Dune, coastal	Newport	2767: 53 cm		53	53	Shell-m, Haliotis cracherodii	UCIAMS-000229	4040	80		3480	3790	4091	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6131
ORA	CA-ORA-0667	421361	3716355	51	Dune, coastal	Newport	2767: 65 cm		65	65	Shell-m, Haliotis cracherodii	UCIAMS-000230	4480	70		4076	4373	4684	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6125
ORA	CA-ORA-0667	421361	3716355	51	Dune, coastal	Newport	2767: 26 cm		26	26	Shell-m, Haliotis cracherodii	UCIAMS-000231	3900	60		3364	3612	3873	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6133
ORA	CA-ORA-0667	421361	3716355	51	Dune, coastal	Newport	2767: 62 cm		62	62	Shell-m, Haliotis cracherodii	UCIAMS-000232	4300	60		3861	4136	4408	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6128
ORA	CA-ORA-0667	421361	3716355	51	Dune, coastal	Newport	2767: 65 cm		65	65	Shell-m, Haliotis fulgens	UCIAMS-000233	4290	70		3834	4123	4409	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6129
ORA	CA-ORA-0667	421361	3716355	51	Dune, coastal	Newport	2767: 80 cm		80	80	Shell-m, Haliotis fulgens	UCIAMS-000234	3870	50		3347	3575	3827	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6135
ORA	CA-ORA-0667	421361	3716355	51	Dune, coastal	Newport	2767: 72 cm		72	72	Shell-m, Haliotis rufescens	UCIAMS-000235	4290	50		3866	4123	4391	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6130
ORA	CA-ORA-0667	421361	3716355	51	Dune, coastal	Newport	2767: 53 cm		53	53	Shell-m, Haliotis cracherodii	UCIAMS-000236	3390	60		2744	2989	3241	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6136
ORA	CA-ORA-0667	421361	3716355	51	Dune, coastal	Newport	2767: 72 cm		72	72	Shell-m, Haliotis cracherodii	UCIAMS-000237	4800	70		4473	4778	5077	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6116
ORA	CA-ORA-0668	424197	3718926	273	Hill, ridge	Newport	1: 40-60 cm		40	60	Shell-m, Argopecten	Beta-023830	690	60		1	114	275	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6111
ORA	CA-ORA-0669	423864	3718968	250	Hill, ridge	Newport	6: 0-17 cm		0	17	Shell-m, Argopecten	Beta-023831	1060	70		233	431	640	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6110
ORA	CA-ORA-0669	423864	3718968	250	Hill, ridge	Newport	8: 0-20 cm		0	20	Shell-m, Chione	Beta-023832	1350	70		498	680	897	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6107
ORA	CA-ORA-0669	423864	3718968	250	Hill, ridge	Newport	8: 20-40 cm		20	40	Shell-m, Chione	Beta-023833	1080	60		265	450	636	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6109
ORA	CA-ORA-0669	423864	3718968	250	Hill, ridge	Newport	8: 40-56 cm		40	56	Shell-m, Chione	Beta-023834	1120	70		282	486	665	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6108
ORA	CA-ORA-0670	423699	3719011	226	Hill, ridge	Newport	9: 10-20 cm		10	20	Shell-m, Chione	Beta-058729	420	60		0	17	77	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6106
ORA	CA-ORA-0670	423699	3719011	226	Hill, ridge	Newport	9: 50-60 cm		50	60	Shell-m, Chione	Beta-058730	470	60		0	32	92	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6105
ORA	CA-ORA-0671	423579	3718899	215	Hill, ridge	Newport	3: 0-20 cm		0	20	Shell-m, Mytilus	Beta-023835	450	60		0	28	88	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6103
ORA	CA-ORA-0671	423579	3718899	215	Hill, ridge	Newport	3: 20-40 cm		20	40	Shell-m, Mytilus	Beta-023836	450	70		0	28	98	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6102
ORA	CA-ORA-0671	423579	3718899	215	Hill, ridge	Newport	63: 30-37 cm		30	37	Charcoal, wood	CAMS-003786	610	50		537	601	664	calib 8.10 IntCal20	Mason, Roger D. 1994	6093
ORA	CA-ORA-0671	423579	3718899	215	Hill, ridge	Newport	1037: 30-40 cm		30	40	Charcoal, wood	CAMS-003787	1390	50		1177	1305	1377	calib 8.10 IntCal20	Mason, Roger D. 1994	6092
ORA	CA-ORA-0671	423579	3718899	215	Hill, ridge	Newport	51: 30-40 cm		30	40	Charcoal, wood	CAMS-003788	540	50		503	554	646	calib 8.10 IntCal20	Mason, Roger D. 1994	6094
ORA	CA-ORA-0671	423579	3718899	215	Hill, ridge	Newport	1135: 0-15 cm		0	15	Charcoal, wood	CAMS-003789	220	70		1	206	440	calib 8.10 IntCal20	Mason, Roger D. 1994	6101
ORA	CA-ORA-0671	423579	3718899	215	Hill, ridge	Newport	63: 30-37 cm		30	37	Shell-m, Mytilus	CAMS-003884	1080	60		265	450	636	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6096
ORA	CA-ORA-0671	423579	3718899	215	Hill, ridge	Newport	1037: 30-40 cm		30	40	Shell-m, Mytilus	CAMS-003885	880	60		44	269	472	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6100
ORA	CA-ORA-0671	423579	3718899	215	Hill, ridge	Newport	51: 30-40 cm		30	40	Shell-m, Haliotis	CAMS-003886	1010	60		154	389	565	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6099
ORA	CA-ORA-0671	423579	3718899	215	Hill, ridge	Newport	1135: 0-15 cm		0	15	Shell-m, Mytilus	CAMS-003887	1170	60		320	530	694	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6095
ORA	CA-ORA-0671	423579	3718899	215	Hill, ridge	Newport	0: 0-10 cm		0	10	Charcoal	UCIAMS-000167	400	50		315	449	522	calib 8.10 IntCal20	Mason, Roger D. 1994	6097

Appendix D-2: Archaeological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
ORA	CA-ORA-0671	423579	3718899	215	Hill, ridge	Newport	0: 0-10 cm	0	10	Shell-m, Argopecten	UCIAMS-000168	680	40		1	102	256	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6098
ORA	CA-ORA-0671	423579	3718899	215	Hill, ridge	Newport	1028: 20-30 cm	20	40	Charcoal	UCIAMS-000170	0	0				N/A - Modern	Mason, Roger D. 1994	6104	
ORA	CA-ORA-0672	423566	3718980	211	Hill, ridge	Newport	78: 70-80 cm	70	80	Shell-m, Chione	Beta-045258	1000	80		134	378	593	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6084
ORA	CA-ORA-0672	423566	3718980	211	Hill, ridge	Newport	78: 30-40 cm	30	40	Shell-m, oyster	Beta-045259	550	70		0	44	114	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6088
ORA	CA-ORA-0672	423566	3718980	211	Hill, ridge	Newport	4: 0-20 cm	0	20	Shell-m, Argopecten	UCIAMS-000127	500	60		0	36	96	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6089
ORA	CA-ORA-0672	423566	3718980	211	Hill, ridge	Newport	4: 20-40 cm	20	40	Shell-m, Argopecten	UCIAMS-000128	888	70		43	277	483	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6087
ORA	CA-ORA-0672	423566	3718980	211	Hill, ridge	Newport	4: 40-60 cm	40	60	Shell-m, Argopecten	UCIAMS-000129	620	50		17	67	117	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6086
ORA	CA-ORA-0672	423566	3718980	211	Hill, ridge	Newport	4: 60-80 cm	60	80	Shell-m, Argopecten	UCIAMS-000130	340	100		0	10	80	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6091
ORA	CA-ORA-0672	423566	3718980	211	Hill, ridge	Newport	4: 80-95	80	95	Shell-m, Argopecten	UCIAMS-000131	730	60		1	137	308	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6083
ORA	CA-ORA-0672	423566	3718980	211	Hill, ridge	Newport	4: 20-40 cm	20	40	Charcoal	UCIAMS-000132	320	50		294	389	492	calib 8.10 IntCal20	Mason, Roger D. 1994	6085
ORA	CA-ORA-0672	423566	3718980	211	Hill, ridge	Newport	4: 40-60 cm	40	60	Charcoal	UCIAMS-000133	430	50		318	480	541	calib 8.10 IntCal20	Mason, Roger D. 1994	6082
ORA	CA-ORA-0672	423566	3718980	211	Hill, ridge	Newport	4: 60-80 cm	60	80	Charcoal	UCIAMS-000134	860	60		679	770	909	calib 8.10 IntCal20	Mason, Roger D. 1994	6081
ORA	CA-ORA-0672	423566	3718980	211	Hill, ridge	Newport	150: 36 cm	36	36	Charcoal	UCIAMS-000171	0	0				N/A - Modern	Mason, Roger D. 1994	6090	
ORA	CA-ORA-0673	422357	3718883	194	Hill, ridge	Coyote Canyon Landfill	TU1, 20-40	20	40	Shell-m, marine	Beta-029214	1110	80		263	476	671	calib 8.10 Marine20; 70±65	N. Whitney-Desautels 1989	32525
ORA	CA-ORA-0673	422357	3718883	194	Hill, ridge	Coyote Canyon Landfill	TU2, 20-30	20	30	Shell-m, marine	Beta-029215	1380	110		470	713	977	calib 8.10 Marine20; 70±65	N. Whitney-Desautels 1989	32526
ORA	CA-ORA-0673	422357	3718883	194	Hill, ridge	Coyote Canyon Landfill	TU2, 30-50	30	50	Shell-m, marine	Beta-029216	880	60		44	269	472	calib 8.10 Marine20; 70±65	N. Whitney-Desautels 1989	32527
ORA	CA-ORA-0673	422357	3718883	194	Hill, ridge	Coyote Canyon Landfill	TU2, 50-60, sterile	50	60	Shell-m, marine	Beta-029217	990	60		143	372	548	calib 8.10 Marine20; 70±65	N. Whitney-Desautels 1989	32528
ORA	CA-ORA-0673	422349	3718898	194	Dune, coastal	Newport	31: 0-1 cm	0	1	Shell-m, Chione	Beta-023998	940	70		85	328	521	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6076
ORA	CA-ORA-0673	422349	3718898	194	Dune, coastal	Newport	112: 20-30 cm	20	30	Shell-m, marine	UCIAMS-000158	730	50		1	135	297	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6069
ORA	CA-ORA-0673	422349	3718898	194	Dune, coastal	Newport	112: 30-40 cm	30	40	Shell-m, marine	UCIAMS-000159	620	60		8	68	128	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6075
ORA	CA-ORA-0673	422349	3718898	194	Dune, coastal	Newport	112: 40-50 cm	40	50	Shell-m, marine	UCIAMS-000160	795	60		1	186	380	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6068
ORA	CA-ORA-0673	422349	3718898	194	Dune, coastal	Newport	112: 50-60 cm	50	60	Shell-m, marine	UCIAMS-000161	810	60		1	198	392	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6080
ORA	CA-ORA-0673	422349	3718898	194	Dune, coastal	Newport	112: 60-70 cm	60	70	Shell-m, marine	UCIAMS-000162	870	60		33	258	461	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6078
ORA	CA-ORA-0673	422349	3718898	194	Dune, coastal	Newport	112: 90-100 cm	90	100	Shell-m, marine	UCIAMS-000163	970	60		130	356	537	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6074
ORA	CA-ORA-0673	422349	3718898	194	Dune, coastal	Newport	112: 100-110 cm	100	110	Shell-m, marine	UCIAMS-000164	700	45		1	114	270	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6071
ORA	CA-ORA-0673	422349	3718898	194	Dune, coastal	Newport	504: 40-60 cm	40	60	Shell-m, marine	UCIAMS-000172	510	40		0	38	78	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6079
ORA	CA-ORA-0673	422349	3718898	194	Dune, coastal	Newport	117: 30-40 cm	30	40	Shell-m, Chione	UCIAMS-000173	660	50		44	94	144	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6073
ORA	CA-ORA-0673	422349	3718898	194	Dune, coastal	Newport	506: 30-40 cm	30	40	Shell-m, Chione	UCIAMS-000174	1010	65		149	388	571	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6072
ORA	CA-ORA-0673	422349	3718898	194	Dune, coastal	Newport	512: 30-40 cm	30	40	Shell-m, Chione	UCIAMS-000175	1060	75		222	431	644	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6070
ORA	CA-ORA-0673	422349	3718898	194	Dune, coastal	Newport	512: 50-60 cm	50	60	Shell-m, Chione	UCIAMS-000176	1310	65		467	643	860	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6065
ORA	CA-ORA-0673	422349	3718898	194	Dune, coastal	Newport	7: 40-50 cm	40	50	Shell-m, Chione	UCIAMS-000177	1670	65		766	993	1230	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6064
ORA	CA-ORA-0673	422349	3718898	194	Dune, coastal	Newport	17: 30-40 cm	30	40	Shell-m, Chione	UCIAMS-000178	1150	70		297	512	686	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6067
ORA	CA-ORA-0673	422349	3718898	194	Dune, coastal	Newport	9: 30-40 cm	30	40	Shell-m, Chione	UCIAMS-000179	1200	70		335	555	736	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6066
ORA	CA-ORA-0673	422349	3718898	194	Dune, coastal	Newport	0: 0-1 cm	0	1	Shell-m, marine	UCIAMS-000180	940	75		78	327	524	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6077
ORA	CA-ORA-0674	423623	3718818	223	Hill, ridge	Newport	1: 0-13 cm	0	13	Shell-m, Chione	Beta-023999	770	70		1	168	366	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6063
ORA	CA-ORA-0674	423623	3718818	223	Hill, ridge	Newport	1: 0-13 cm	0	13	Charcoal	Beta-024000	980	60		734	865	1046	calib 8.10 IntCal20	Mason, Roger D. 1994	6060
ORA	CA-ORA-0674	423623	3718818	223	Hill, ridge	Newport	87: 10-20 cm	10	20	Charcoal	Beta-041969	540	50		503	554	646	calib 8.10 IntCal20	Mason, Roger D. 1994	6061

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County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
ORA	CA-ORA-0674	423623	3718818	223	Hill, ridge	Newport	87: 40-50 cm	40	50	Charcoal	Beta-041970	490	60		331	523	645	calib 8.10 IntCal20	Mason, Roger D. 1994	6062
ORA	CA-ORA-0675	423696	3718678	225	Hill, ridge	Newport	9: 0-10 cm	0	10	Shell-m, Chione	Beta-035430	930	70		76	319	513	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6056
ORA	CA-ORA-0675	423696	3718678	225	Hill, ridge	Newport	9: 0-20 cm	0	20	Shell-m, Chione	Beta-035431	910	80		50	298	504	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6057
ORA	CA-ORA-0675	423696	3718678	225	Hill, ridge	Newport	9: 20-30 cm	20	30	Shell-m, Chione	Beta-035432	850	70		4	237	431	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6058
ORA	CA-ORA-0675	423696	3718678	225	Hill, ridge	Newport	9: 30-40 cm	30	40	Shell-m, Chione	Beta-035433	610	70		0	65	135	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6054
ORA	CA-ORA-0675	423696	3718678	225	Hill, ridge	Newport	9: 40-50 cm	40	50	Shell-m, Chione	Beta-035434	850	80		1	238	435	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6059
ORA	CA-ORA-0675	423696	3718678	225	Hill, ridge	Newport	9: 50-60 cm	50	60	Shell-m, Chione	Beta-035435	940	70		85	328	521	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6055
ORA	CA-ORA-0675	423696	3718678	225	Hill, ridge	Newport	9: 60-70 cm	60	70	Shell-m, Chione	Beta-035436	640	90		45	85	125	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6053
ORA	CA-ORA-0675	423696	3718678	225	Hill, ridge	Newport	395: 30-40 cm	30	40	Shell-m, Chione	Beta-042032	970	80		96	353	552	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6052
ORA	CA-ORA-0676	423568	3718629	214	Hill, ridge	Newport	1: 0-20 cm	0	20	Shell-m, Ostrea	Beta-023837	390	70		0	10	160	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6051
ORA	CA-ORA-0676	423568	3718629	214	Hill, ridge	Newport	1: 20-38 cm	20	38	Shell-m, Argopecten	Beta-023838	920	70		68	309	505	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6048
ORA	CA-ORA-0676	423568	3718629	214	Hill, ridge	Newport	2: 0-20 cm	0	20	Shell-m, Chione	Beta-023839	640	80		45	85	125	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6047
ORA	CA-ORA-0676	423568	3718629	214	Hill, ridge	Newport	2: 20-30 cm	20	30	Shell-m, Argopecten	Beta-023840	410	70		0	15	85	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6050
ORA	CA-ORA-0676	423568	3718629	214	Hill, ridge	Newport	19: 10-20 cm	10	20	Shell-m, oyster	Beta-044929	490	50		0	35	85	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6049
ORA	CA-ORA-0677	423549	3718562	221	Hill, ridge	Newport	1: 0-7 cm	0	7	Shell-m, Argopecten	Beta-023823	790	70		1	183	384	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6046
ORA	CA-ORA-0677	423549	3718562	221	Hill, ridge	Newport	11: 0-10 cm	0	10	Shell-m, Argopecten and oyster	Beta-041971	1280	80		424	619	854	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6045
ORA	CA-ORA-0678	423622	3718495	242	Hill, ridge	Newport	7: 91 cm	91	91	Shell-m, Megathura	Beta-042033	640	70		12	82	152	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6044
ORA	CA-ORA-0679	423748	3717954	259	Hill, ridge	Newport	1: 0-20 cm	0	20	Shell-m, Argopecten	Beta-023841	640	70		0	78	158	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6043
ORA	CA-ORA-0679	423748	3717954	259	Hill, ridge	Newport	22: 10-20 cm	10	20	Shell-m, Argopecten	Beta-042034	660	80		14	94	174	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6042
ORA	CA-ORA-0682	423692	3717927	261	Hill, ridge	Newport	22: 0-10 cm	0	10	Shell-m, Chione	Beta-042035	1170	80		303	529	719	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6041
ORA	CA-ORA-0683	422865	3717670	226	Hill, ridge	Newport	14: 0-1 cm	0	1	Shell-m, Chione	Beta-023842	730	60		1	137	308	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6031
ORA	CA-ORA-0683	422865	3717670	226	Hill, ridge	Newport	4: 0-10 cm	0	10	Shell-m, Chione	Beta-039638	440	60		0	27	87	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6038
ORA	CA-ORA-0683	422865	3717670	226	Hill, ridge	Newport	4: 10-20 cm	10	20	Shell-m, Chione	Beta-039639	590	80		0	57	117	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6036
ORA	CA-ORA-0683	422865	3717670	226	Hill, ridge	Newport	4: 20-30 cm	20	30	Shell-m, Chione	Beta-039640	1030	50		220	406	604	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6032
ORA	CA-ORA-0683	422865	3717670	226	Hill, ridge	Newport	4: 30-40 cm	30	40	Shell-m, Chione	Beta-039641	340	70		0	10	80	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6040
ORA	CA-ORA-0683	422865	3717670	226	Hill, ridge	Newport	4: 40-50 cm	40	50	Shell-m, Chione	Beta-039642	410	90		0	15	105	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6039
ORA	CA-ORA-0683	422865	3717670	226	Hill, ridge	Newport	35: 20-30 cm	20	30	Shell-m, Chione	Beta-039643	620	70		1	71	141	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6035
ORA	CA-ORA-0683	422865	3717670	226	Hill, ridge	Newport	35: 30-40 cm	30	40	Shell-m, Chione	Beta-039644	660	70		24	94	164	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6033
ORA	CA-ORA-0683	422865	3717670	226	Hill, ridge	Newport	49: 0-30 cm	0	30	Shell-m, marine	Beta-044930	480	70		0	33	103	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6037
ORA	CA-ORA-0683	422865	3717670	226	Hill, ridge	Newport	802: 0-30 cm	0	30	Shell-m, Chione	Beta-044931	630	80		18	78	138	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6034
ORA	CA-ORA-0684	421629	3717988	164	Hill, ridge	Newport	8: 0-1 cm	0	1	Shell-m, Chione	Beta-023843	1500	80		600	819	1064	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6028
ORA	CA-ORA-0684	421629	3717988	164	Hill, ridge	Newport	32: 15-28 cm	15	28	Shell-m, Chione	Beta-038430	1010	50		172	390	559	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	6030
ORA	CA-ORA-0684	421629	3717988	164	Hill, ridge	Newport	32: 15-28 cm	15	28	Charcoal, wood	Beta-038431	1000	50		784	891	1051	calib 8.10 IntCal20	Mason, Roger D. 1994	6027
ORA	CA-ORA-0684	421629	3717988	164	Hill, ridge	Newport	32: 15-28 cm	15	28	Charcoal, wood	Beta-038432	880	60		688	789	912	calib 8.10 IntCal20	Mason, Roger D. 1994	6029
ORA	CA-ORA-0684	421629	3717988	164	Hill, ridge	Newport	32: 15-28 cm	15	28	Charcoal, wood	Beta-038433	1030	60		791	935	1060	calib 8.10 IntCal20	Mason, Roger D. 1994	6026
ORA	CA-ORA-0684	421629	3717988	164	Hill, ridge	Newport	23: 56-65 cm	56	65	Charcoal, wood	Beta-038434	3480	60		3575	3751	3894	calib 8.10 IntCal20	Mason, Roger D. 1994	6024
ORA	CA-ORA-0684	421629	3717988	164	Hill, ridge	Newport	10: 47 cm	47	47	Charcoal	Beta-038673	3520	70		3584	3792	3980	calib 8.10 IntCal20	Mason, Roger D. 1994	6023
ORA	CA-ORA-0684	421629	3717988	164	Hill, ridge	Newport	25: 35-51 cm	35	51	Charcoal, wood	Beta-038674	1890	60		1633	1803	1982	calib 8.10 IntCal20	Mason, Roger D. 1994	6025
ORA	CA-ORA-0687	418291	3725458	15	Terrace, coastal	Los Trancos Canyon	N0/E70: 30-40 cm	30	40	Shell-m, Chione	UCLA-2145C		0	0				N/A - Modern	Schroth, A. 1983	6022
ORA	CA-ORA-0687	418291	3725458	15	Terrace, coastal	Los Trancos Canyon	N10/W14.96: 30-40 cm, coordinates in Pacific - need to change	30	40	Shell-m, marine assumed	UCLA-2145D	1440	80		540	764	985	calib 8.10 Marine20; 70±65	Schroth, A. 1983	6021
ORA	CA-ORA-0689	423932	3719984	197	Hill, ridge	San Joaquin Hills	2: 10-20 cm	10	20	Shell-m, Pecten	Beta-030384	580	80		5	55	105	calib 8.10 Marine20; 70±65	de Barros, P. 1990	6018
ORA	CA-ORA-0689	423932	3719984	197	Hill, ridge	San Joaquin Hills	2: 90-100	90	100	Shell-m, Pecten	Beta-030385	430	80		0	25	105	calib 8.10 Marine20; 70±65	de Barros, P. 1990	6020
ORA	CA-ORA-0689	423932	3719984	197	Hill, ridge	San Joaquin Hills	1: 30-40 cm	30	40	Charcoal	Beta-030535	260	40		1	308	454	calib 8.10 IntCal20	de Barros, P. 1990	6019
ORA	CA-ORA-0730	425517	3720813	108	Hill, ridge	Irvine, Shady Canyon	Unit 3	40	50	Shell-m, Ostrea	Beta-124484	1090	80	0	248	458	662	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2004	32753
ORA	CA-ORA-0730	425517	3720813	108	Hill, ridge	Irvine, Shady Canyon	Unit 3	60	70	Shell-m Haliotis f.	Beta-124485	1790	60	0	900	1114	1314	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2004	32754
ORA	CA-ORA-0730	425517	3720813	108	Hill, ridge	Irvine, Shady Canyon	Unit 3	130	140	Shell-m, Argopecten sp.	Beta-124486	2210	60	0	1318	1551	1788	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2004	32755
ORA	CA-ORA-0731	425698	3720615	151	Hill, ridge	Irvine, Shady Canyon	Unit 1	20	30	Shell-m, Chione c.	Beta-124487	1130	40	0.8	312	496	650	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2004	32756
ORA	CA-ORA-0732	426388	3720327	181	Hill, ridge	Irvine, Shady Canyon	Unit 4	30	40	Shell-m, Chione c.	Beta-124488	1530	70	0	636	845	1076	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2004	32757
ORA	CA-ORA-0732	426388	3720327	181	Hill, ridge	Irvine, Shady Canyon	Unit 4	80	90	Shell-m, Chione c.	Beta-124489	1940	70	0	1035	1				

Appendix D-2: Archaeological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
ORA	CA-ORA-0807	426296	3722168	79	Hill, ridge	Irvine, Shady Canyon	Unit 1	20	30	Shell-m, Chione f.	Beta-124493	1410	110	0	493	740	1009	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2004	32762
ORA	CA-ORA-0807	426296	3722168	79	Hill, ridge	Irvine, Shady Canyon	Unit 1	40	50	Shell-m, Chione c.	Beta-124494	970	70	0	115	354	546	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2004	32763
ORA	CA-ORA-0807	426296	3722168	79	Hill, ridge	Irvine, Shady Canyon	Unit 1	60	70	Shell-m, Chione c.	Beta-124495	1220	70	0	365	571	769	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2004	32764
ORA	CA-ORA-0808	426288	3722235	73	Hill, ridge	Irvine, Shady Canyon	Unit 1	0	10	Shell-m, Chione c.	Beta-124496	1350	50	-1.8	510	678	879	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2004	32765
ORA	CA-ORA-0904	428652	3722845	108	Hill, ridge	Area 17	Unit 2	0	70	Shell-m, marine	Beta-156614	1380	40	-0.7	537	706	895	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2001	32817
ORA	CA-ORA-0904	428652	3722845	108	Hill, ridge	Area 17	Unit 2	0	70	Shell-m, marine	Beta-156615	1730	40	-0.7	863	1054	1262	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2001	32818
ORA	CA-ORA-0928	422434	3715274	45	Hill, ridge		10: 0-20 cm	0	20	Shell-m, Mytilus	Beta-023844	4250	80		3768	4070	4390	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5970
ORA	CA-ORA-0928	422434	3715274	45	Hill, ridge		10: 20-40 cm	20	40	Shell-m, Mytilus	Beta-023845	4140	80		3611	3924	4239	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5971
ORA	CA-ORA-0928	422434	3715274	45	Hill, ridge		1: 20-30 cm	20	30	Shell-m, Mytilus	Beta-043393	4090	80		3545	3857	4168	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5972
ORA	CA-ORA-0928	422434	3715274	45	Hill, ridge		1: 30-40 cm	30	40	Shell-m, Mytilus	Beta-043394	4000	90		3435	3739	4068	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5973
ORA	CA-ORA-0928	422434	3715274	45	Hill, ridge		32: 30-40 cm	30	40	Shell-m, Mytilus	Beta-043395	3900	90		3322	3615	3932	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5975
ORA	CA-ORA-0928	422434	3715274	45	Hill, ridge		32: 40-50 cm	40	50	Shell-m, Mytilus	Beta-043396	3900	90		3322	3615	3932	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5974
ORA	CA-ORA-0929	423271	3714586	46	Hill, ridge		29: 40-50 cm	40	50	Shell-m, Mytilus	Beta-024001	5640	80		5487	5760	6014	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5963
ORA	CA-ORA-0929	423271	3714586	46	Hill, ridge		29: 30-40 cm	30	40	Shell-m, Mytilus	Beta-024002	4750	100		4371	4714	5061	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5964
ORA	CA-ORA-0929	423271	3714586	46	Hill, ridge		19: 10-20 cm	10	20	Shell-m, Mytilus	Beta-043397	4540	80		4152	4455	4779	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5965
ORA	CA-ORA-0929	423271	3714586	46	Hill, ridge		19: 30-40 cm	30	40	Shell-m, Mytilus	Beta-043398	4310	90		3825	4149	4476	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5968
ORA	CA-ORA-0929	423271	3714586	46	Hill, ridge		19: 50-60 cm	50	60	Shell-m, Mytilus	Beta-043399	4380	90		3902	4241	4564	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5967
ORA	CA-ORA-0929	423271	3714586	46	Hill, ridge		19: 70-80 cm	70	80	Shell-m, Mytilus	Beta-043400	4440	90		3975	4319	4653	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5966
ORA	CA-ORA-0929	423271	3714586	46	Hill, ridge		19: 90-100 cm	90	100	Shell-m, Mytilus	Beta-043401	3990	80		3436	3726	4037	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5969
ORA	CA-ORA-1011	428148	3723607	85	Hill, ridge	Area 17	Unit 3	0	50	Shell-m, marine	Beta-156170	2980	40	-1.4	2294	2504	2724	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2001	32816
ORA	CA-ORA-1029	425289	3719085	282	Hill, ridge		3: 10-20 cm	10	20	Shell-m, Pecten	Beta-030388	1060	80		210	431	645	calib 8.10 Marine20; 70±65	de Barros, P. 1990	5960
ORA	CA-ORA-1029	425289	3719085	282	Hill, ridge		3: 30-40 cm	30	40	Shell-m, Pecten and Chione	Beta-030389	790	80		1	186	392	calib 8.10 Marine20; 70±65	de Barros, P. 1990	5959
ORA	CA-ORA-1069	428602	3722638	135	Hill, ridge	Area 17	Unit 1	0	100	Shell-m, marine	Beta-156616	1460	40	-1.3	602	779	967	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2001	32824
ORA	CA-ORA-1069	428602	3722638	135	Hill, ridge	Area 17	Unit 1	0	100	Shell-m, marine	Beta-156617	2100	100	0	1163	1437	1728	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2001	32825
ORA	CA-ORA-1069	428602	3722638	135	Hill, ridge	Area 17	Unit 1	0	100	Shell-m, marine	Beta-156618	1790	40	-0.7	919	1115	1293	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2001	32826
ORA	CA-ORA-1082	424343	3720188	243	Hill, ridge		1: 0-10 cm	0	10	Shell-m, Chione	Beta-030390	710	130		1	155	390	calib 8.10 Marine20; 70±65	de Barros, P. 1990	5954
ORA	CA-ORA-1082	424343	3720188	243	Hill, ridge		1: 70-80 cm	70	80	Shell-m, Chione	Beta-030391	440	80		0	27	107	calib 8.10 Marine20; 70±65	de Barros, P. 1990	5955
ORA	CA-ORA-1083	424412	3720139	231	Hill, ridge		1: 0-10 cm	0	10	Shell-m, Chione and Pecten	Beta-030392	680	80		1	117	290	calib 8.10 Marine20; 70±65	de Barros, P. 1990	5953
ORA	CA-ORA-1083	424412	3720139	231	Hill, ridge		1: 20-30 cm	20	30	Shell-m, Chione and Pecten	Beta-030393	780	80		1	178	385	calib 8.10 Marine20; 70±65	de Barros, P. 1990	5952
ORA	CA-ORA-1085	422181	3721373	61	Floodplain		1: 40-50 cm	40	50	Shell-m, Chione	Beta-041972	2090	60		1222	1423	1673	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5950
ORA	CA-ORA-1085	422181	3721373	61	Floodplain		1: 50-60 cm	50	60	Shell-m, Argopecten	Beta-041973	2030	80		1110	1363	1618	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5951
ORA	CA-ORA-1086	421279	3721683	42	Hill, ridge		0-15 cm	0	15	Shell-m, Chione	Beta-037414	630	60		0	75	155	calib 8.10 Marine20; 70±65	de Barros, P. 1990	5947
ORA	CA-ORA-1086	421279	3721683	42	Hill, ridge		15-31 cm	15	31	Shell-m, Chione	Beta-037415	680	60		1	109	269	calib 8.10 Marine20; 70±65	de Barros, P. 1990	5946
ORA	CA-ORA-1086	421279	3721683	42	Hill, ridge		45-61 cm	45	61	Shell-m, marine assumed	UCLA-1873C	425	60		0	22	82	calib 8.10 Marine20; 70±65	Schroth, A. 1983	5949
ORA	CA-ORA-1086	421279	3721683	42	Hill, ridge		30-45 cm	30	45	Shell-m, marine assumed	UCLA-1873D	620	50		18	68	118	calib 8.10 Marine20; 70±65	Schroth, A. 1983	5948
ORA	CA-ORA-1112	422466	3719306	200	Hill, ridge	Coyote Canyon Landfill	Surface collection	0	2	Shell-m, marine assumed	Beta-07	690	100		195	462	696	calib 8.10 Marine20; 70±65	N. Whitney-Desautels 1989	32828
ORA	CA-ORA-1114	427141	3721389	96	Hill, ridge	Irvine, Shady Canyon	Unit 1	60	70	Shell-m, Chione f.	Beta-128189	1810	70	0	907	1133	1346	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2004	32772
ORA	CA-ORA-1114	427141	3721389	96	Hill, ridge	Irvine, Shady Canyon	Unit 1	70	80	Shell-m, Chione f.	Beta-128190	1560	80	0	651	876	1124	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2004	32773
ORA	CA-ORA-1194	422357	3722136	82	Hill, ridge	UC Irvine	Unit 1, 0-60 cm	0	60	Shell-m, marine	Beta-049365	3460	90		3261	3575	3895	calib 8.10 Marine20; 70±65	Jones, Carleton S. 1992	32541
ORA	CA-ORA-1203	421781	3717908	182	Hill, ridge	San Joaquin Hills	2: 10-20 cm	10	20	Shell-m, Chione	Beta-041974	960	80		88	344	544	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5945
ORA	CA-ORA-1203	421781	3717908	182	Hill, ridge	San Joaquin Hills	8: 10-20 cm	10	20	Shell-m, Chione	Beta-041975	1080	70		253	449	646	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5944
ORA	CA-ORA-1204	423648	3718904	224	Hill, ridge	San Joaquin Hills	1: 20-30 cm	20	30	Shell-m, Chione	Beta-041976	530	60		0	40	100	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5943
ORA	CA-ORA-1204	423648	3718904	224	Hill, ridge	San Joaquin Hills	13: 10-20 cm	10	20	Shell-m, Argopecten	Beta-041977	600	60		0	57	137	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5942
ORA	CA-ORA-1205	423533	3718887	215	Hill, ridge	San Joaquin Hills	1: 0-20 cm	0	20	Shell-m, Argopecten	Beta-023825	460	80		0	30	110	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5935
ORA	CA-ORA-1205	423533	3718887	215	Hill, ridge	San Joaquin Hills	6: 0-20 cm	0	20	Shell-m, Argopecten	Beta-023826	390	60		0	10	100	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5936
ORA	CA-ORA-1205	423533	3718887	215	Hill, ridge	San Joaquin Hills	36: 20-30 cm	20	30	Shell-m, Chione	Beta-035437	580	80		0	52	132	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5932
ORA	CA-ORA-1205	423533	3718887	215	Hill, ridge	San Joaquin Hills	29: 10-20 cm	10	20	Shell-m, Chione	Beta-035438	920	70		68	309	505	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5931
ORA	CA-ORA-1205	423533	3718887	215	Hill, ridge	San Joaquin Hills	12: 30-40 cm	30	40	Shell-m, Chione	Beta-035439	510	60		0	38	98	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5934
ORA	CA-ORA-1205	423533	3718887	215	Hill, ridge	San Joaquin Hills	12: 10-20 cm	10	20	Shell-m, Chione	Beta-035440	920	70		68	309	505	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5930
ORA	CA-ORA-1205	423533	3718887	215	Hill, ridge	San Joaquin Hills	12: 50-60 cm	50	60	Shell-m, Chione	Beta-035441	830	80		1	219	420	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5933
ORA	CA-ORA-1205	423533	3718887	215	Hill, ridge	San Joaquin Hills	12: 40-50 cm	40	50	Shell-m, Chione	Beta-035442	620	70		15	75	135	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5928
ORA	CA-ORA-1205	423533	3718887	215	Hill, ridge	San Joaquin Hills	32: 20-30 cm	20	30	Shell-m, Chione	Beta-035443	670	70		28	98	168	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5926
ORA	CA-ORA-1205	423533	3718887	215	Hill, ridge	San Joaquin Hills	12: 0-10 cm	0	10	Shell-m, Chione	Beta-035444	920	70		68	309	505	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5929
ORA	CA-ORA-1205	423533	3718887	215	Hill, ridge	San Joaquin Hills	29: 20-30 cm	20	30	Shell-m, Chione	Beta-035445	640	70		12	82	152	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5927
ORA	CA-ORA-1205	423533	3718887	215	Hill, ridge	San Joaquin Hills	12: 20-30 cm	20	30	Shell-m, Chione	Beta-035446	1070	70		244	440	643	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5925
ORA	CA-ORA-1205	423533	3718887	215	Hill, ridge	San Joaquin Hills	16: 10-50 cm	10	50	Shell-m, Argopecten	Beta-035447	50	80		0	5	100	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5941

Appendix D-2: Archaeological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
ORA	CA-ORA-1205	423533	3718887	215	Hill, ridge	San Joaquin Hills	46: 10-15 cm	10	15	Shell-m, Argopecten	Beta-035448	280	80		0	10	80	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5940
ORA	CA-ORA-1205	423533	3718887	215	Hill, ridge	San Joaquin Hills	16: 15 cm	15	15	Charcoal	UCIAMS-000165	0	0				N/A - Modern	Mason, Roger D. 1994	5939	
ORA	CA-ORA-1205	423533	3718887	215	Hill, ridge	San Joaquin Hills	16: 10 cm	10	10	Shell-m, Haliotis	UCIAMS-000166	380	50		0	10	90	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5937
ORA	CA-ORA-1205	423533	3718887	215	Hill, ridge	San Joaquin Hills	46: 7-10 cm	7	10	Shell-m, Argopecten	UCIAMS-000169	220	30		0	10	70	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5938
ORA	CA-ORA-1206	423586	3718510	231	Hill, ridge		9: 0-10 cm	0	10	Shell-m, marine	Beta-041978	900	70		53	289	492	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5924
ORA	CA-ORA-1208	422171	3715260	32	Terrace, coastal	PCH	35: 20-30 cm	20	30	Shell-m, Mytilus	Beta-046066	3390	80		2726	2991	3275	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5918
ORA	CA-ORA-1208	422171	3715260	32	Terrace, coastal	PCH	34: 20-30 cm	20	30	Shell-m, Pecten	Beta-046067	820	70		1	208	406	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5922
ORA	CA-ORA-1208	422171	3715260	32	Terrace, coastal	PCH	35: 0-10 cm	0	10	Shell-m, Mytilus	Beta-046068	2030	60		1142	1361	1589	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5919
ORA	CA-ORA-1208	422171	3715260	32	Terrace, coastal	PCH	35: 10-20 cm	10	20	Shell-m, Pecten	Beta-046069	640	50		8	78	148	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5921
ORA	CA-ORA-1208	422171	3715260	32	Terrace, coastal	PCH	33: 20-30 cm	20	30	Shell-m, Chione	Beta-046070	1010	70		148	388	591	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5920
ORA	CA-ORA-1208	422171	3715260	32	Terrace, coastal	PCH	28: 20-30 cm	20	30	Shell-m, Ostrea	Beta-046071	410	60		0	15	75	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5923
ORA	CA-ORA-1208	422170	3715261	32	Terrace, coastal	PCH	Unit 35	10	20	Shell-m, Argopecten sp.		640	50		8	78	148	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	33028
ORA	CA-ORA-1208	422170	3715261	32	Terrace, coastal	PCH	Unit 34	20	30	Shell-m, Argopecten sp.		820	70		359	576	783	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	33029
ORA	CA-ORA-1208	422170	3715261	32	Terrace, coastal	PCH	Unit 33	20	30	Shell-m, Chione		1010	70		529	743	955	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	33030
ORA	CA-ORA-1208	422170	3715261	32	Terrace, coastal	PCH	Unit 35	0	10	Shell-m, Mytilus		2030	60		1554	1820	2088	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	33031
ORA	CA-ORA-1208	422170	3715261	32	Terrace, coastal	PCH	Unit 35	20	30	Shell-m, Mytilus		3390	80		3203	3489	3807	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	33032
ORA	CA-ORA-1208	422170	3715261	32	Terrace, coastal	PCH	Unit 28	20	30	Shell-m, Ostrea		410	60		0	13	73	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	33027
ORA	CA-ORA-1229	422182	3715776	26	Hill, ridge		5: 20-40 cm	20	40	Shell-m, Mytilus and Chione	Beta-042873	1240	70		387	586	790	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5917
ORA	CA-ORA-1230	422185	3715804	19	Hill, ridge		7: 0-20 cm	0	20	Shell-m, marine	Beta-042874	1140	80		281	503	691	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5916
ORA	CA-ORA-1231	422254	3715860	23	Floodplain	Pelican Hill	3: 215 cm	215	215	Shell-m, Mytilus	Beta-041981	6480	80		6392	6669	6946	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5913
ORA	CA-ORA-1231	422254	3715860	23	Hill, ridge		3: 10-20 cm	10	20	Shell-m, Mytilus	Beta-041979	6460	100		6339	6646	6951	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5914
ORA	CA-ORA-1231	422254	3715860	23	Hill, ridge		3: 95 cm	95	95	Shell-m, Mytilus	Beta-041980	6210	80		6120	6376	6645	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5915
ORA	CA-ORA-1232	422230	3715820	33	Hill, ridge		4: 60-70 cm	60	70	Shell-m, marine	Beta-042875	1110	70		276	477	660	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5912
ORA	CA-ORA-1233	422306	3715893	35	Hill, ridge		9: 0-20 cm	0	20	Shell-m, marine	Beta-042876	540	60		0	42	102	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5911
ORA	CA-ORA-1235	422434	3715994	36	Hill, ridge		6: 60-80 cm	60	80	Shell-m, marine	Beta-042877	1160	70		305	521	696	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5910
ORA	CA-ORA-1249	424037	3719354	227	Hill, ridge		Loc. B, 2: 10-20 cm	10	20	Shell-m, Chione	Beta-030394	760	70		1	161	356	calib 8.10 Marine20; 70±65	de Barros, P. 1990	5903
ORA	CA-ORA-1249	424037	3719354	227	Hill, ridge		Loc. B, 2: 100-125 cm	100	125	Shell-m, Chione and Pecten	Beta-030395	1540	60		650	854	1070	calib 8.10 Marine20; 70±65	de Barros, P. 1990	5900
ORA	CA-ORA-1249	424037	3719354	227	Hill, ridge		Loc. C, 2: 10-20 cm	10	20	Shell-m, Chione	Beta-030396	1310	90		446	646	894	calib 8.10 Marine20; 70±65	de Barros, P. 1990	5902
ORA	CA-ORA-1249	424037	3719354	227	Hill, ridge		Loc. C, 2: 50-60 cm	50	60	Shell-m, Chione and Pecten	Beta-030397	690	80		1	122	298	calib 8.10 Marine20; 70±65	de Barros, P. 1990	5904
ORA	CA-ORA-1249	424037	3719354	227	Hill, ridge		Loc. E, 2: 10-20 cm	10	20	Shell-m, Chione	Beta-030398	1330	60		491	661	873	calib 8.10 Marine20; 70±65	de Barros, P. 1990	5901
ORA	CA-ORA-1249	424037	3719354	227	Hill, ridge		Loc. A, 1: 30-40 cm	30	40	Charcoal	Beta-030537	1270	90		973	1184	1341	calib 8.10 IntCal20	de Barros, P. 1990	5899
ORA	CA-ORA-1249	424037	3719354	227	Hill, ridge		Loc. D, 1: 0-10 cm	0	10	Shell-m, Chione	Beta-030538	900	60		62	290	487	calib 8.10 Marine20; 70±65	de Barros, P. 1990	5905
ORA	CA-ORA-1249	424037	3719354	227	Hill, ridge		Loc. D, 1: 30-40 cm	30	40	Shell-m, Pecten	Beta-030539	480	60		0	33	93	calib 8.10 Marine20; 70±65	de Barros, P. 1990	5906
ORA	CA-ORA-1249	424037	3719354	227	Hill, ridge		Loc. E, 1: 0-10 cm	0	10	Shell-m, Chione	Beta-030540	390	60		0	10	110	calib 8.10 Marine20; 70±65	de Barros, P. 1990	5907
ORA	CA-ORA-1295	420996	3721975	42	Floodplain	Newport	4: 110-115 cm	110	115	Shell-m, Ostrea	Beta-046084	720	80		1	138	327	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5862
ORA	CA-ORA-1295	420996	3721975	42	Floodplain	Newport	3: 60-70 cm	60	70	Shell-m, Ostrea	Beta-046085	690	80		1	122	298	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5863
ORA	CA-ORA-1295	420996	3721975	42	Floodplain	Newport	3: 60-70 cm	60	70	Shell-m, Pecten	Beta-046086	580	60		0	48	118	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5864
ORA	CA-ORA-1295	420996	3721975	42	Floodplain	Newport	4: 100-110 cm	100	110	Shell-m, Mytilus	Beta-046087	300	60		0	10	80	calib 8.10 Marine20; 70±65	Mason, Roger D. 1994	5865
ORA	CA-ORA-1298	436039	3728363	210	Hill, ridge	Auga Chinon	Hearth Feature 5	10	40	Soil (SOC)	Beta-050778	1930	80	-25	1626	1851	2052	calib 8.10 IntCal20	Gary Hurd 1992	32542
ORA	CA-ORA-1298	436039	3728363	210	Hill, ridge	Auga Chinon	Hearth Feature 5	10	40	Soil (SOC)	Beta-050779	2180	80	-25	1951	2176	2345	calib 8.10 IntCal20	Gary Hurd 1992	32543
ORA	CA-ORA-1298	436039	3728363	210	Hill, ridge	Auga Chinon	Unit 107, Outside House	10	40	Soil (SOC)	Beta-050780	3250	80	-25	3261	3474	3689	calib 8.10 IntCal20	Gary Hurd 1992	32544
ORA	CA-ORA-1298	436039	3728363	210	Hill, ridge	Auga Chinon	Unit 107, Outside House	10	40	Soil (SOC)	Beta-050781	3360	80	-25	3407	3597	3828	calib 8.10 IntCal20	Gary Hurd 1992	32545
ORA	CA-ORA-1298	436039	3728363	210	Hill, ridge	Auga Chinon	Unit 203, Interior House	10	40	Soil (SOC)	Beta-050782	2300	60	-25	2126	2307	2607	calib 8.10 IntCal20	Gary Hurd 1992	32546
ORA	CA-ORA-1298	436039	3728363	210	Hill, ridge	Auga Chinon	Unit 205, Interior House	10	40	Soil (SOC)	Beta-050783	2760	60	-25	2755	2860	2997	calib 8.10 IntCal20	Gary Hurd 1992	32547
ORA	CA-ORA-1321	421931	3754458	165	Hill, ridge	Brea, Orinda Heights	1321-S-23, surface item 23	0	2	Shell-m, Chione c.	Beta-120989	950	70	0	95	337	530	calib 8.10 Marine20; 70±65	Mason, Roger D. 1999	32746
ORA	CA-ORA-1345/1499	437440	3727086	226	Fan	Borrego Wash	Group 2, Hearth No. 02, bottom, with Mytilus shell and rodent bones	1271	1271	Charcoal, sediment	Beta-052779	7330	60		8011	8127	8325	calib 8.10 IntCal20	Gary Hurd 1992	32548
ORA	CA-ORA-1345/1499	437440	3727086	226	Fan	Borrego Wash	Group 1, Hearth No. 01	186	186	Charcoal	Beta-055962	480	110		302	500	667	calib 8.10 IntCal20	Gary Hurd 1992	32555
ORA	CA-ORA-1345/1499	437440	3727086	226	Fan	Borrego Wash	Group 2, Hearth No. 04	174	174	Charcoal	Beta-055963	370	80		1	402	553	calib 8.10 IntCal20	Gary Hurd 1992	32556
ORA	CA-ORA-1345/1499	437440	3727086	226	Fan	Borrego Wash	Group 3, Hearth No. 06	835	835	Soil (SOC)	Beta-055965	4580	70		4975	5253	5476	calib 8.10 IntCal20	Gary Hurd 1992	32557
ORA	CA-ORA-1345/1499	437440	3727086	226	Fan	Borrego Wash	Group 3, Hearth No. 07	890	890	Soil (SOC)	Beta-055966	6360	160		6892	7255	7570	calib 8.10 IntCal20	Gary Hurd 1992	32558
ORA	CA-ORA-1345/1499	437440	3727086	226	Fan	Borrego Wash	Group 3, Hearth No. 10	549	549	Soil (SOC)	Beta-055969	3550	80		3590	3840	4086	calib 8.10 IntCal20	Gary Hurd 1992	32559
ORA	CA-ORA-1345/1499	437440	3727086	226	Fan	Borrego Wash	Group 3, Hearth No. 12	497	497	Soil (SOC)	Beta-055970	3600	70		3694	3909	4144	calib 8.10 IntCal20	Gary Hurd 1992	32560
ORA	CA-ORA-1345/1499	437440	3727086	226	Fan	Borrego Wash	Group 4, Hearth No. 13	689	689	Soil (SOC)	Beta-055971	5520	90		6006	6318	6528	calib 8.10 IntCal20	Gary Hurd 1992	32561
ORA	CA-ORA-1345/1499	437440	3727086	226	Fan	Borrego Wash	Group 4, Hearth No. 20	796	796	Soil (SOC)	Beta-055972	5640	70		6293	6427	6625	calib 8.10 IntCal20	Gary Hurd 1992	32562
ORA	CA-ORA-1345/1499	437440	3727086	226	Fan	Borrego Wash	Group 1, Hearth No. 22	469	469	Soil (SOC)	Beta-055973	3380	70		3411	3622	3838	calib 8.10 IntCal20	Gary Hurd 1992	32563
ORA	CA-ORA-1345/1499	437440	3727086	226	Fan	Borrego Wash	Hearth 5	506	506	Soil (SOC)	Beta-056781	1590	60		1317	1468	1688	calib 8.10 IntCal20	Gary Hurd 1992	32565
ORA	CA-ORA-1345/1499	437440	3727086	226	Fan	Borrego Wash	Group 1, Hearth No. 08	1173	1173	Soil (SOC)	Beta-056782	6820	70		7515	7661	7834	calib 8.10 IntCal20	Gary Hurd 1992	32566
ORA	CA-ORA-1345/1499	437440	3727086	226	Fan	Borrego Wash	Group 1, Hearth No. 09	232	232	Soil (SOC)	Beta-056783	1790	70		1479	1684	1923	cal		

Appendix D-2: Archaeological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
ORA	CA-ORA-1405	425077	3717674	234	Cave, Shelter	Muddy Canyon	Loc. B, Unit 2, 230-240 cm	230	240	Shell-m, Mytilus californianus	Beta-188086	5810	140		5588	5948	6283	calib 8.10 Marine20; 70±65	Sawyer	5887
ORA	CA-ORA-1405	425077	3717674	234	Cave, Shelter	Muddy Canyon	Loc. B, Unit 3, 190-200 cm	190	200	Shell-m, Mytilus californianus	Beta-188087	4140	120		3543	3925	4323	calib 8.10 Marine20; 70±65	Sawyer	5892
ORA	CA-ORA-1405	425077	3717674	234	Cave, Shelter	Muddy Canyon	Loc. B, Unit 3, 170-180 cm	170	180	Shell-m, Mytilus californianus	Beta-188088	6670	140		6511	6886	7248	calib 8.10 Marine20; 70±65	Sawyer	5886
ORA	CA-ORA-1405	425077	3717674	234	Cave, Shelter	Muddy Canyon	Loc. B, Unit 3, 220-230 cm	220	230	Shell-m, Mytilus californianus	Beta-188089	8840	170		8718	9241	9702	calib 8.10 Marine20; 70±65	Sawyer	5882
ORA	CA-ORA-1405	425077	3717674	234	Cave, Shelter	Muddy Canyon	Loc. A, Unit 7, 130-140 cm	130	140	Charcoal	UW-4255	880	50		690	785	911	calib 8.10 IntCal20	Macko	5895
ORA	CA-ORA-1405	425077	3717674	234	Cave, Shelter	Muddy Canyon	Loc. A, Unit 7, 150-160 cm	150	160	Charcoal	UW-4256	920	40		737	835	916	calib 8.10 IntCal20	Macko	5894
ORA	CA-ORA-1405	425077	3717674	234	Cave, Shelter	Muddy Canyon	Loc. B, Unit 14, 0-10 cm	0	10	Shell-m, Mytilus californianus	UW-4260	4330	50		3903	4177	4426	calib 8.10 Marine20; 70±65	Macko	5890
ORA	CA-ORA-1405	425077	3717674	234	Cave, Shelter	Muddy Canyon	Loc. B, Unit 14, 50-60 cm	50	60	Shell-m, Mytilus californianus	UW-4261	4290	50		3866	4123	4391	calib 8.10 Marine20; 70±65	Macko	5891
ORA	CA-ORA-1405	425077	3717674	234	Cave, Shelter	Muddy Canyon	Loc. B, Unit 14, 100-110 cm	100	110	Shell-m, Mytilus californianus	UW-4262	4110	50		3617	3883	4147	calib 8.10 Marine20; 70±65	Macko	5893
ORA	CA-ORA-1405	425077	3717674	234	Cave, Shelter	Muddy Canyon	Loc. B, Unit 14, 150-160 cm	150	160	Shell-m, Mytilus californianus	UW-4263	5560	40		5472	5677	5890	calib 8.10 Marine20; 70±65	Macko	5888
ORA	CA-ORA-1405	425077	3717674	234	Cave, Shelter	Muddy Canyon	Loc. B, Unit 14, 200-210 cm	200	210	Shell-m, Mytilus californianus	UW-4264	8520	60		8551	8838	9114	calib 8.10 Marine20; 70±65	Macko	5883
ORA	CA-ORA-1405	425077	3717674	234	Cave, Shelter	Muddy Canyon	Loc. B, Unit 14, 230-240 cm	230	240	Shell-m, Mytilus californianus	UW-4265	6750	50		6741	6980	7215	calib 8.10 Marine20; 70±65	Macko	5885
ORA	CA-ORA-1405	425077	3717674	234	Cave, Shelter	Muddy Canyon	Loc. A, Unit 7, 130-140 cm	130	140	Shell-m, Mytilus californianus	UW-4266	1400	50		543	725	913	calib 8.10 Marine20; 70±65	Macko	5897
ORA	CA-ORA-1405	425077	3717674	234	Cave, Shelter	Muddy Canyon	Loc. A, Unit 7, 110-120 cm	110	120	Shell-m, Mytilus californianus	UW-4267	1440	50		567	762	948	calib 8.10 Marine20; 70±65	Macko	5896
ORA	CA-ORA-1420	426496	3721794	82	Hill, ridge	Irvine, Shady Canyon	Unit 1	20	30	Shell-m, Argopecten sp.	Beta-124497	930	60	0	89	320	508	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2004	32766
ORA	CA-ORA-1420	426496	3721794	82	Hill, ridge	Irvine, Shady Canyon	Unit 1	40	50	Shell-m, Argopecten sp.	Beta-124498	890	80	0	35	278	487	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2004	32767
ORA	CA-ORA-1421	427256	3721421	109	Hill, ridge	Irvine, Shady Canyon	Unit 1	10	20	Shell-m, Chione f.	Beta-121891	1210	110	0	295	563	809	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2004	32747
ORA	CA-ORA-1422	426380	3721454	75	Hill, ridge	Irvine, Shady Canyon	Unit 2	10	20	Shell-m, Argopecten sp.	Beta-128192	1030	140	0	70	398	669	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2004	32774
ORA	CA-ORA-1422	426380	3721454	75	Hill, ridge	Irvine, Shady Canyon	Unit 2	30	40	Shell-m, Argopecten sp.	Beta-128193	640	80	0	2	82	162	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2004	32775
ORA	CA-ORA-1422	426380	3721454	75	Hill, ridge	Irvine, Shady Canyon	Unit 2	60	70	Shell-m, Ostrea	Beta-128194	920	60	0	79	310	501	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2004	32776
ORA	CA-ORA-1423	426762	3721439	88	Hill, ridge	Irvine, Shady Canyon	Unit 1	40	50	Shell-m, Argopecten sp.	Beta-128195	1790	80	0	875	1113	1346	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2004	32777
ORA	CA-ORA-1423	426762	3721439	88	Hill, ridge	Irvine, Shady Canyon	1423-1-70	60	70	Shell-m, Argopecten sp.	Beta-128196	1330	90	0	463	664	906	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2004	32778
ORA	CA-ORA-1423	426762	3721439	88	Hill, ridge	Irvine, Shady Canyon	1423-1-90	80	90	Shell-m, Argopecten sp.	Beta-128197	1350	80	0	489	682	907	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2004	32779
ORA	CA-ORA-1425	426419	3722355	86	Hill, ridge	Irvine, Shady Canyon	1425-1-10	0	10	Shell-m, Argopecten sp.	Beta-124499	1440	50	1.3	567	762	948	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2004	32768
ORA	CA-ORA-1426	426159	3720484	142	Hill, ridge	Irvine, Shady Canyon	1426-1-30	20	30	Shell-m, Argopecten sp.	Beta-124500	800	100	0	1	198	416	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2004	32769
ORA	CA-ORA-1427	426465	3722542	92	Hill, ridge	Irvine, Shady Canyon	1427-1-40	30	40	Shell-m, Chione c.	Beta-124501	1110	80	0	263	476	671	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2004	32770
ORA	CA-ORA-1427	426465	3722542	92	Hill, ridge	Irvine, Shady Canyon	1427-1-80	70	80	Shell-m, Chione c.	Beta-124502	1210	60	0	364	563	742	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2004	32771
ORA	CA-ORA-1429	421987	3715460	15	Terrace, coastal	Crystal Cove, PCH	System 47 Storm Drain trench, capped by 30 cm fill	120	120	Shell-m, Mytilus	Beta-080536	3960	90	1.2	3376	3689	3999	calib 8.10 Marine20; 70±65	Chase, Paul G. 1998	28405
ORA	CA-ORA-1429	421987	3715460	15	Terrace, coastal	Crystal Cove, PCH	System 47 Storm Drain trench, capped by 30 cm fill	120	120	Shell-m, Mytilus	Beta-080537	4050	100	1.8	3462	3804	4144	calib 8.10 Marine20; 70±65	Chase, Paul G. 1998	28406
ORA	CA-ORA-1461	419245	3719342	63	Hill, ridge	MacArthur Blvd.	Unit 1, 20-30 cm	20	30	Shell-m, Polinices sp.	Beta-094580	1710	60	0	812	1034	1256	calib 8.10 Marine20; 70±65	Strudwick, Ivan H. 1996	32708
ORA	CA-ORA-1461	419245	3719342	63	Hill, ridge	MacArthur Blvd.	Unit 1, -30 cm	30	30	Shell-m, Chione sp.	Beta-094581	2550	60	0	1704	1959	2236	calib 8.10 Marine20; 70±65	Strudwick, Ivan H. 1996	32709
ORA	CA-ORA-1461	419245	3719342	63	Hill, ridge	MacArthur Blvd.	Unit 1, -40 cm	30	30	Shell-m, Chione sp.	Beta-094582	2600	60	0	1773	2022	2293	calib 8.10 Marine20; 70±65	Strudwick, Ivan H. 1996	32710
ORA	CA-ORA-1461	419245	3719342	63	Hill, ridge	MacArthur Blvd.	N 4.75/W 4.1, -8 cm	8	8	Shell-m, Chione f.	Beta-095790	2290	70	0	1384	1643	1904	calib 8.10 Marine20; 70±65	Strudwick, Ivan H. 1996	32731
ORA	CA-ORA-1461	419245	3719342	63	Hill, ridge	MacArthur Blvd.	N 4.35/W 3.57, -6 cm	6	6	Shell-m, Halotis c.	Beta-095791	960	70	0	105	346	538	calib 8.10 Marine20; 70±65	Strudwick, Ivan H. 1996	32732
ORA	CA-ORA-1472	399038	3734935	12	Terrace, coastal	Landing Hill	Burial 11			Shell-m, Chione	Beta-174345	5060	70		4831	5110	5379	calib 8.10 Marine20; 70±65	Cleland, James 2007	33892
ORA	CA-ORA-1482	423609	3714403	49	Hill, ridge	Morro Canyon	Unit 3, 30-40 cm	30	40	Shell-m, Mytilus	Beta-109130	4420	50	0.5	4018	4294	4555	calib 8.10 Marine20; 70±65	Strudwick, Ivan H. 1998	32739
ORA	CA-ORA-1485	424252	3720391	208	Hill, ridge	Coyote Canyon	Unit 2, 30 cm			Shell-m, marine	Beta-152774	1080	80	0	238	449	659	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2001	32797
ORA	CA-ORA-1485	424252	3720391	208	Hill, ridge	Coyote Canyon	Unit 2, 40 cm			Shell-m, marine	Beta-152775	850	70	0	4	237	431	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2001	32798
ORA	CA-ORA-1492	421837	3716310	68	Hill, ridge	Los Trancos Canyon	STP 11, 0-10 cm	0	10	Shell-m, Mytilus	Beta-119393	430	80	1	0	23	103	calib 8.10 Marine20; 70±65	Strudwick, Ivan H. 1998	32742
ORA	CA-ORA-1503	402109	3733186	2	Terrace, coastal	Seal Beach Naval				Shell-m, Argopecten sp.	Beta-294292	980	30		167	367	525	calib 8.10 Marine20; 70±65	Whitaker, Adrian R. 2011	33087
ORA	CA-ORA-1503	402109	3733186	2	Terrace, coastal	Seal Beach Naval				Shell-m, Argopecten sp.	Beta-294293	1050	30		259	425	597	calib 8.10 Marine20; 70±65	Whitaker, Adrian R. 2011	33088

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County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
ORA	CA-ORA-1503	402109	3733186	2	Terrace, coastal	Seal Beach Naval				Shell-m, Argopecten sp.	Beta-294294	1060	30		268	434	604	calib 8.10 Marine20; 70±65	Whitaker, Adrian R. 2011	33089
ORA	CA-ORA-1511	422947	3714780	66	Hill, ridge	Crystal Cove	Unit 3, 0-10 cm, found during grading	0	10	Shell-m, marine	Beta-130964	1970	50	1.4	1087	1297	1513	calib 8.10 Marine20; 70±65	Smith, David M. 2004	32789
ORA	CA-ORA-1525	427488	3723554	71	Hill, ridge	Area 17	Unit 27	0	40	Shell-m, marine	Beta-156620	2090	40	1.4	1232	1421	1635	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2001	32829
ORA	CA-ORA-1528	428433	3722467	154	Hill, ridge	Area 17	Unit 2	0	30	Shell-m, marine	Beta-156831	680	40	-1	1	102	256	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2001	32831
ORA	CA-ORA-1537	427826	3737500	149	Cave, shelter	Cowan Heights	Unit 2, 40-50 cm, intact hearth feature?	40	50	Charcoal	Beta-141223	180	60	-25	1	171	304	calib 8.10 IntCal20	Maxon, Patrick O. 2000	32792
ORA	CA-ORA-1537	427826	3737500	149	Cave, shelter	Cowan Heights	Unit 2, 40-50 cm, intact hearth feature?	40	50	Charcoal	Beta-141224	110	60	-25	5	127	280	calib 8.10 IntCal20	Maxon, Patrick O. 2000	32793
ORA	CA-ORA-1537	427826	3737500	149	Hill, ridge		Pit feature, deposit capped by 1.7 meters of fill	170	200	Shell-m, marine	Beta-132084	2280	70	0	1373	1632	1889	calib 8.10 Marine20; 70±65	Ferraro, Davis D. 2000	32790
ORA	CA-ORA-1587	426393	3721464	76	Floodplain		Unit 82, 120-130 cm	120	130	Shell-m, Laevicardium alatum	Beta-147817	1470	40		612	788	978	calib 8.10 Marine20; 70±65	Koerper	5879
ORA	CA-ORA-1587	426393	3721464	76	Floodplain		Unit 82, 120-130 cm	120	130	Shell-m, Haliotis cracherodii	Beta-147818	1430	40		566	752	929	calib 8.10 Marine20; 70±65	Koerper	5880
ORA	CA-ORA-1654	407565	3724274	4	Dune, coastal	Huntington Beach, PCH	Unit 5, Level 2, mixed with historical items	20	30	Shell-m, marine	Beta-159981	960	80	-1	88	344	544	calib 8.10 Marine20; 70±65	Barros, Philip 2002	32845
ORA	CA-ORA-1654	407565	3724274	4	Dune, coastal	Huntington Beach, PCH	Unit 8, Level 2, mixed with historical items	20	30	Shell-m, marine	Beta-159982	650	60	-0.5	5	85	165	calib 8.10 Marine20; 70±65	Barros, Philip 2002	32846
ORA	CA-ORA-1673	433723	3728510	138	Fan	Tomato Springs	PA6-01, hearth or cooking feature	900	900	Shell-m, marine	Beta-210222	4670	10	-0.6	4409	4624	4827	calib 8.10 Marine20; 70±65	Archer, Gavin 2007	32903
ORA	CA-ORA-1674	433304	3728958	134	Fan	Tomato Springs	PA6-02, hearth or cooking feature	200	200	Shell-m, marine	Beta-210223	6980	110	0.9	6909	7218	7494	calib 8.10 Marine20; 70±65	Archer, Gavin 2007	32904
ORA	CA-ORA-1675	433396	3728906	135	Fan	Tomato Springs	PA6-03, hearth or cooking feature	300	300	Shell-m, marine	Beta-210224	4310	70	0.7	3850	4150	4428	calib 8.10 Marine20; 70±65	Archer, Gavin 2007	32905
ORA	CA-ORA-1677	433758	3728622	137	Fan	Tomato Springs	PA6-06, hearth or cooking feature	700	700	Charcoal, wood	Beta-210225	4380	40	-24.6	4848	4943	5255	calib 8.10 IntCal20	Archer, Gavin 2007	32906
ORA	CA-ORA-1678	434023	3728139	147	Fan	Tomato Springs	PA6-07, hearth or cooking feature	100	100	Shell-m, marine	Beta-210227	1350	70	-0.4	498	680	897	calib 8.10 Marine20; 70±65	Archer, Gavin 2007	32907
ORA	CA-ORA-1679	433876	3728198	137	Fan	Tomato Springs	PA6-09, hearth or cooking feature	300	300	Charcoal, wood	Beta-210229	3580	40	-25.1	3723	3882	4058	calib 8.10 IntCal20	Archer, Gavin 2007	32909
ORA	CA-ORA-1680	433838	3728209	138	Fan	Tomato Springs	PA6-10, hearth or cooking feature	400	400	Shell-m, marine	Beta-210230	4860	80	0.7	4555	4864	5204	calib 8.10 Marine20; 70±65	Archer, Gavin 2007	32910
ORA	CA-ORA-1702	434114	3728960	144	Fan	Tomato Springs	PA6-15, Feature 1, Unit 1, Level 4, hearth (under fill)	100	110	Charcoal	Beta-242295	2280	40	-21.6	2154	2251	2352	calib 8.10 IntCal20	Archer, Gavin 2007	33079
ORA	CA-ORA-1702	434114	3728960	144	Fan	Tomato Springs	PA6-15, Feature 3, Unit 3, Level 4, hearth (under fill)	100	110	Shell-m, Argopecten sp.	Beta-242296	1450	40	-1.5	591	770	956	calib 8.10 Marine20; 70±65	Archer, Gavin 2007	33080
ORA	CA-ORA-1702	434114	3728960	144	Fan	Tomato Springs	PA6-15, Feature 5, Unit 5, Level 4, hearth (under fill)	100	110	Charcoal	Beta-242297	440	40	-23.5	330	498	541	calib 8.10 IntCal20	Archer, Gavin 2007	33081
ORA	CA-ORA-1702	434114	3728960	144	Fan	Tomato Springs	PA6-15, Feature 6, Unit 6, Level 4, hearth (under fill)	100	110	Charcoal	Beta-242298	460	40	-20.4	335	509	548	calib 8.10 IntCal20	Archer, Gavin 2007	33082
ORA	CA-ORA-1702	434114	3728960	144	Fan	Tomato Springs	PA6-18, Feature 1, Unit 1, Level 1, hearth	200	210	Charcoal	Beta-247860	690	40	-23	556	649	686	calib 8.10 IntCal20	Archer, Gavin 2007	33085
ORA	CA-ORA-1703	433825	3729420	151	Fan	Tomato Springs	PA6-18, Feature 2, Unit 2, Level 1, hearth	300	310	Charcoal	Beta-247861	690	40	-22.2	556	649	686	calib 8.10 IntCal20	Archer, Gavin 2007	33086
ORA	CA-ORA-1711	399572	3735384	7	Terrace, coastal	Seal Beach Naval	Auger Probe, from disturbed fill context			Shell-m, Argopecten sp.	Beta-299653	1670	30	0.4	783	993	1187	calib 8.10 Marine20; 70±65	Whitaker, Adrian R. 2011	33090
ORA		434901	3725522	142	Fan	Borrego Canyon, Alton Parkway	Feature 6, hearth charcoal and FCR, Alton612	365	370	Charcoal	Beta-327300	3790	30	-25.9	4012	4173	4289	calib 8.10 IntCal20	O'Neil, Stephen 2012	33091
ORA		434688	3725523	142	Fan	Borrego Canyon, Alton Parkway	Feature 7, hearth charcoal and FCR, Alton613	365	370	Soil (SOC)	Beta-327301	3500	30	-24.9	3650	3768	3868	calib 8.10 IntCal20	O'Neil, Stephen 2012	33092
ORA		434688	3725523	142	Fan	Borrego Canyon, Alton Parkway	Feature 7, hearth charcoal and FCR, Alton623	365	370	Charcoal	Beta-327302	3510	30	-24.4	3694	3775	3871	calib 8.10 IntCal20	O'Neil, Stephen 2012	33093
ORA		421311	3727216	11	Floodplain	Irvine, Sprig Gun Club	Sprig Gun Club (historical)			Shell-m, marine assumed	UCR-04187	6135	235		5740	6297	6849	calib 8.10 Marine20; 70±65	Schroth, A. 1979	6658
ORA		399200	3735318		Terrace, coastal	Landing Hill, Nonsite	Burial 4			Shell-m, Tivela	Beta-174338	3780	40		3235	3466	3697	calib 8.10 Marine20; 70±65	Cleland, James 2007	33885
ORA		399200	3735318		Terrace, coastal	Landing Hill, Nonsite	Pit feature			Shell-m, Argopecten	Beta-202367	2340	40		1479	1702	1933	calib 8.10 Marine20; 70±65	Cleland, James 2007	33946
ORA		399200	3735318		Terrace, coastal	Landing Hill, Nonsite	Pit feature			Shell-m, Chione	Beta-202368	2390	40		1535	1763	1986	calib 8.10 Marine20; 70±65	Cleland, James 2007	33947
ORA		399200	3735318		Terrace, coastal	Landing Hill, Nonsite	Burial 4			Bone, human tooth	Beta-209735	3130	40		3239	3352	3446	calib 8.10 IntCal20	Cleland, James 2007	33950
ORA					Hill, ridge	SC1-PS, Irvine, Shady Canyon	Post Hole 57 (not recorded as a site)			Shell-m, Argopecten sp.	Beta-124481	2190	60	-1.9	1298	1528	1757	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2004	32750
VEN	CA-VEN-1617	348049	3789998	366	Hill, ridge	VEN-1617, Box Canyon	need	60	70	Shell-m, Mytilus	need	3227	34		2575	2799	3034	calib 8.10 Marine20; 70±65		30010

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County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN		373924	3773806	123	Fan, alluvial	8150 Sunset Blvd.	Borehole B-105 @ 119 feet	3627.1	3627.12	Organic sediment	Beta-364446	26080	140	-23.9	30053	30303	30759	calib 8.10 IntCal20		29915
LAN		373924	3773806	123	Fan, alluvial	8150 Sunset Blvd.	Borehole B-105 @ 69.7 feet	2124.5	2124.46	Organic sediment	Beta-365558	8710	40	-24.7	9545	9651	9888	calib 8.10 IntCal20		29912
LAN		373924	3773806	123	Fan, alluvial	8150 Sunset Blvd.	Borehole B-106 @ 45.5 feet	1386.8	1386.84	Organic sediment	Beta-365559	6260	40	-23.8	7018	7199	7265	calib 8.10 IntCal20		29916
LAN		373924	3773806	123	Fan, alluvial	8150 Sunset Blvd.	Borehole B-106 @ 65.1 feet	1984.2	1984.25	Organic sediment	Beta-365560	11080	40	-22.5	12903	13008	13095	calib 8.10 IntCal20		29928
LAN	CA-LAN-0171	376161	3765205	33	Floodplain	Angeles Mesa, Haverty	Haverty skeleton #5, rejected due to older organics	579	700	Bone, osteocalcin	UCR-3085	11960	500		12905	14050	15443	calib 8.10 IntCal20	Brooks 1990	7682
LAN	CA-LAN-0171	376161	3765205	33	Floodplain	Angeles Mesa, Haverty	Haverty skeleton #4, rejected due to older organics	579	700	Bone, human osteocalcin	UCR-3088	12600	460		13597	14880	16211	calib 8.10 IntCal20	Brooks 1990	7681
LAN	CA-LAN-0171	376161	3765205	33	Floodplain	Angeles Mesa, Haverty	Haverty skeleton #4, rejected due to older organics	579	700	Bone, human osteocalcin	UCR-3090	13500	220		15683	16288	16971	calib 8.10 IntCal20	Brooks 1990	7680
LAN	CA-LAN-0171	376161	3765205	33	Floodplain	Angeles Mesa, Haverty	Haverty skeleton #4, rejected due to older organics	579	700	Bone, human osteocalcin	HA-0105B	15900	250		18750	19219	19832	calib 8.10 IntCal20	Brooks 1990	7679
LAN		373480	3763001	77	Hill, Ridge	Baldwin Hills	Core or trench? Fossil shell?			Shell-m, marine fossil		36000	2750		34397	39311	43153	calib 8.10 Marine20; 70±65	Woodward, G. D. 1976	7849
LAN		376505	3764113	35	Marsh, inland	Baldwin Hills Plaza	Santa Barbara Plaza Shopping Center			Peat, freshwater	UCLA-0781	3420	90		3456	3671	3890	calib 8.10 IntCal20	Berger, R. 1965, Ericson, J. E. 1972	7806
LAN		366490	3759282	2	Coastal bay/marsh	Ballona Wetlands	Core 061	2.441	2.441	Shell-m, Cerithidea californica	Beta-012436	4670	60	-5.7	4350	4622	4862	calib 8.10 Marine20; 70±65		26006
LAN		366490	3759282	2	Coastal bay/marsh	Ballona Wetlands	Core 061	2.861	2.861	Shell-m, Cerithidea californica	Beta-012437	4900	140	-0.8	4491	4917	5316	calib 8.10 Marine20; 70±65		26007
LAN		366490	3759282	2	Coastal bay/marsh	Ballona Wetlands	Core 008	1826	1829	Organic sediment	Beta-085583	20800	110	-25.1	24678	25081	25329	calib 8.10 IntCal20		26185
LAN		366490	3759282	2	Coastal bay/marsh	Ballona Wetlands	Core 008	0.27	0.27	Organic sediment	Beta-085584	1070	100	-25	771	985	1177	calib 8.10 IntCal20		26009
LAN		366490	3759282	2	Coastal bay/marsh	Ballona Wetlands	Core 008	5.79	5.79	Charcoal	Beta-085915	5820	60	-26	6485	6623	6750	calib 8.10 IntCal20		26018
LAN		366490	3759282	2	Coastal bay/marsh	Ballona Wetlands	Core 008	7.16	7.16	Organic sediment	Beta-085916	6580	70	-25	7416	7481	7580	calib 8.10 IntCal20		26019
LAN		366490	3759282	2	Coastal bay/marsh	Ballona Wetlands	Core 008	1503	1510	Organic sediment	Beta-085917	11140	60	-26.7	12910	13056	13163	calib 8.10 IntCal20		26184
LAN		366490	3759282	2	Coastal bay/marsh	Ballona Wetlands	Core 008	3.461	3.461	Shell-m, Cerithidea californica	Beta-087297	4610	100	-2.1	4191	4545	4855	calib 8.10 Marine20; 70±65		26005
LAN		366490	3759282	2	Coastal bay/marsh	Ballona Wetlands	Core 043	2.161	2.161	Shell-m, Cerithidea californica	Beta-124363	4380	60	-0.5	3961	4242	4515	calib 8.10 Marine20; 70±65		26004
LAN		366490	3759282	2	Coastal bay/marsh	Ballona Wetlands	Core 043	7.04	7.04	Shell-m, Chione sp.	Beta-124364	7520	60		7525	7730	7938	calib 8.10 Marine20; 70±65		26008
LAN		366490	3759282	2	Coastal bay/marsh	Ballona Wetlands	Core 061	432	457	Shell-m, Cerithidea californica, hornshell	Beta-124365	4450	70	-2.4	4025	4332	4634	calib 8.10 Marine20; 70±65	Brevik, Eric C. 2004	15483
LAN		366490	3759282	2	Coastal bay/marsh	Ballona Wetlands	Core 061	474	489	Shell-m, Cerithidea californica, hornshell	Beta-124366	4680	140		4184	4629	5047	calib 8.10 Marine20; 70±65	Brevik, Eric C. 2004	15479
LAN					Coastal bay/marsh	Ballona Wetlands	Core 061	1189	1192	Peat	Beta-124367	15640	50	-24.8	18815	18902	19016	calib 8.10 IntCal20		24302
LAN		366490	3759282	2	Coastal bay/marsh	Ballona Wetlands	Core 100	1.931	1.931	Shell-m, Cerithidea californica	Beta-124368	3960	60	-2.9	3432	3687	3959	calib 8.10 Marine20; 70±65		26003
LAN		366490	3759282	2	Coastal bay/marsh	Ballona Wetlands	Core 100	1.8	1.8	Shell-m, Ostrea lurida	Beta-124369	4790	60		4485	4764	5045	calib 8.10 Marine20; 70±65		26010
LAN		366490	3759282	2	Coastal bay/marsh	Ballona Wetlands	Core 100	1.61	1.61	Shell-m, Ostrea lurida	Beta-124370	4790	120	-0.2	4400	4767	5185	calib 8.10 Marine20; 70±65		26011
LAN		366490	3759282	2	Coastal bay/marsh	Ballona Wetlands	Core 100	1416	1437	Wood	Beta-124371	14700	120	-25.7	17555	17996	18242	calib 8.10 IntCal20	Brevik, Eric C. 2004	32749
LAN		366490	3759282	2	Coastal bay/marsh	Ballona Wetlands	Core 001	43	43	Charcoal	Beta-131129	730	60	-27.2	623	672	746	calib 8.10 IntCal20		26013
LAN		366490	3759282	2	Coastal bay/marsh	Ballona Wetlands	Core 001	84	84	Charcoal	Beta-131130	1980	60	-25.2	1739	1909	2055	calib 8.10 IntCal20		26014
LAN		366490	3759282	2	Coastal bay/marsh	Ballona Wetlands	Core 001	169	169	Shell-m, Cerithidea californica	Beta-131131	2740	40	-2.7	1948	2195	2424	calib 8.10 Marine20; 70±65		26002
LAN		366490	3759282	2	Coastal bay/marsh	Ballona Wetlands	Core 001	484	488	Shell-m, Ostrea lurida	Beta-131132	6220	80	1.5	6134	6387	6656	calib 8.10 Marine20; 70±65		26012
LAN		366490	3759282	2	Coastal bay/marsh	Ballona Wetlands	Core 025	665	665	Wood	Beta-131133	3480	70	-28.3	3566	3749	3924	calib 8.10 IntCal20		26021
LAN		366490	3759282	2	Coastal bay/marsh	Ballona Wetlands	Core 025	805	805	Charcoal	Beta-131134	4060	80	-30.8	4403	4570	4830	calib 8.10 IntCal20		26015
LAN		366490	3759282	2	Coastal bay/marsh	Ballona Wetlands	Core 025	890	890	Charcoal	Beta-131135	4610	60	-28.5	5214	5340	5476	calib 8.10 IntCal20		26016
LAN		366490	3759282	2	Coastal bay/marsh	Ballona Wetlands	Core 025	957	957	Charcoal	Beta-131136	4830	60	-28.9	5453	5542	5662	calib 8.10 IntCal20		26017
LAN		366490	3759282	2	Coastal bay/marsh	Ballona Wetlands	7333U724L77			Shell-m, unidentified shell	Beta-190480	4630	70	1	4286	4573	4836	calib 8.10 Marine20; 70±65	Koerper, H. C. 2006	32875

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County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN		366490	3759282	2	Coastal bay/marsh	Ballona Wetlands	6222U540L81			Shell-m, unidentified shell	Beta-190481	4410	110	-1.4	3899	4279	4649	calib 8.10 Marine20; 70±65	Koerper, H. C. 2006	32876
LAN		366490	3759282	2	Coastal bay/marsh	Ballona Wetlands	SAMPLE2-9269			Shell-m, unidentified shell	Beta-191109	1240	40	1.5	425	585	752	calib 8.10 Marine20; 70±65	Koerper, H. C. 2006	32877
LAN		366490	3759282	2	Coastal bay/marsh	Ballona Wetlands	15739-923-00			Shell-m, unidentified shell	Beta-193296	970	50	1.3	140	357	528	calib 8.10 Marine20; 70±65	Koerper, H. C. 2006	32879
LAN		366490	3759282	2	Coastal bay/marsh	Ballona Wetlands	15743-925-00			Shell-m, unidentified shell	Beta-193297	830	50	0.7	1	216	402	calib 8.10 Marine20; 70±65	Koerper, H. C. 2006	32880
LAN		369578	3770402	86	Fan	Beverly Hills Hilton	9876 Wilshire Blvd., Boring SB2-372	1134	1134	Organic	Beta-391742	13290	50	-23.8	15785	15969	16157	calib 8.10 IntCal20		29918
LAN		369578	3770402	86	Fan	Beverly Hills Hilton	9876 Wilshire Blvd., Boring SB4-43.4	1323	1323	Organic	Beta-391743	13660	70	-18.4	16280	16509	16785	calib 8.10 IntCal20		29949
LAN		369578	3770402	86	Fan	Beverly Hills Hilton	9876 Wilshire Blvd., Boring SB4-44	1341	1341	Organic	Beta-391744	14800	50	-16.8	17962	18144	18245	calib 8.10 IntCal20		29950
LAN		369578	3770402	86	Fan	Beverly Hills Hilton	9876 Wilshire Blvd., Boring SB5-33	1006	1006	Charcoal	Beta-391745	11120	40	-24.5	12918	13043	13111	calib 8.10 IntCal20		29913
LAN		375478	3774359	141	Fan	Camino Palermo	Unit 5, CP-G 36.3-37.3 ft.	1106	1137	Soil, SOC	AA-021028	19789	234		23128	23809	24307	calib 8.10 IntCal20	Dolan, James F. 2000	32159
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 07, CF71-BS	198	198	Organic sediment, bulk	CAMS-(?)	1650	35	-28	1412	1533	1688	calib 8.10 IntCal20		30012
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 05, CF51-BS	287	287	Organic sediment, bulk	CAMS-(?)	1955	35	-25	1747	1882	1990	calib 8.10 IntCal20		30014
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 04, CF41-BS	152	152	Organic sediment, bulk	CAMS-(?)	2345	35	-25	2185	2357	2608	calib 8.10 IntCal20		30015
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 05, CF56-BS	584	584	Organic sediment, bulk	CAMS-(?)	4890	35	-25	5493	5628	5715	calib 8.10 IntCal20		30016
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 04, CF46-BS	2678	2678	Organic sediment, bulk	CAMS-(?)	10290	35	-25	11832	12024	12446	calib 8.10 IntCal20		30019
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 04, CF42-BS	1207	1207	Organic sediment, bulk	CAMS-(?)	6135	40	-25	6902	7028	7160	calib 8.10 IntCal20		30034
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 08, CF81-BS	1532	1532	Organic sediment, bulk	CAMS-(?)	8125	40	-25	8991	9068	9263	calib 8.10 Marine20; 70±65		30037
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 05, CF52-BS	501	501	Organic sediment, bulk	CAMS-(?)	2965	45	-25	2967	3129	3324	calib 8.10 IntCal20		30042
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 05, CF53-BS	816	816	Organic sediment, bulk	CAMS-(?)	4740	50	-25	5325	5480	5584	calib 8.10 IntCal20		30046
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 03, CF32-BS	2081	2081	Organic sediment, bulk	CAMS-(?)	10085	50	-28	11353	11642	11828	calib 8.10 IntCal20		30048
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 05, CF55-BS	2525	2525	Organic sediment, bulk	CAMS-(?)	7800	60	-25	8420	8574	8770	calib 8.10 IntCal20		30058
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 04, CF44-BS	2109	2109	Organic sediment, bulk	CAMS-(?)	8480	80	-25	9280	9481	9597	calib 8.10 IntCal20		30062
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 02, CF21-BS	640.08	640.08	Organic sediment, bulk	CAMS-(?)	890	90	-25	672	807	956	calib 8.10 IntCal20		30064
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 07, CF71-H	198	198	Organic sediment, humates	CAMS-(?)	2010	60	-25	1749	1947	2120	calib 8.10 IntCal20		30057
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 03, CF32-H	2081	2081	Organic sediment, humates	CAMS-(?)	12240	70	-25	13889	14179	14809	calib 8.10 IntCal20		30059
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 05, CF58	1133	1133	Charcoal	CAMS-(?)	7590	35	-25	8343	8393	8446	calib 8.10 IntCal20		30017
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 03, CF31	2175	2175	Charcoal	CAMS-(?)	11995	35	-25	13792	13909	14023	calib 8.10 IntCal20		30022
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 04, CF43	1545	1545	Charcoal	CAMS-(?)	7475	40	-25	8192	8286	8369	calib 8.10 IntCal20		30036
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 01, CF11	335.28	335.28	Charcoal	CAMS-(?)	10105	40	-25	11402	11697	11868	calib 8.10 IntCal20		30038
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 05, CF59	2048	2048	Charcoal	CAMS-(?)	12215	40	-25	14037	14119	14309	calib 8.10 IntCal20		30040
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 05, CF57	602	602	Charcoal	CAMS-(?)	5925	45	-25	6656	6748	6883	calib 8.10 IntCal20		30043
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 03, CF33	1138	1138	Charcoal	CAMS-(?)	7940	50	-25	8607	8795	8988	calib 8.10 IntCal20		30047
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 04, CF47	304	304	Organic sediment, bulk	CAMS-(?)	1845	35	-25	1632	1755	1863	calib 8.10 IntCal20		30013
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 06	1920.2	1920.24	Charcoal	CAMS-(?)	11650	35	-25	13447	13510	13594	calib 8.10 IntCal20		30020
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 06	1889.8	1889.76	Charcoal	CAMS-(?)	11985	40	-25	13786	13902	14023	calib 8.10 IntCal20		30039
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 06	396	396	Organic sediment, bulk	CAMS-(?)	1140	35	-25	958	1032	1175	calib 8.10 IntCal20		30011
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 06	1931	1931	Organic sediment, bulk	CAMS-(?)	9205	35	-25	10249	10359	10493	calib 8.10 IntCal20		30018

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County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 06	1981.2	1981.2	Organic sediment, bulk	CAMS-(?)	11880	35	-25	13605	13713	13797	calib 8.10 IntCal20		30021
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 06	2731	2731	Organic sediment, humates	CAMS-(?)	12080	35	-25	13809	13926	14060	calib 8.10 IntCal20		30023
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 06	1931	1931	Organic sediment, humates	CAMS-(?)	8870	210	-25	9488	9942	10492	calib 8.10 IntCal20		30073
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 10, CLAF101	518	518	Charcoal	CAMS-?	3005	35	-25	3073	3196	3334	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32284
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 10, CLAF102	1410	1410	Charcoal	CAMS-?	6300	35	-25	7161	7215	7307	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32285
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 10, CLAF103	3803	3803	Charcoal	CAMS-?	25050	290	-25	28768	29357	29957	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32286
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 12, CLAF123	457	457	Charcoal	CAMS-?	2460	35	-25	2365	2551	2706	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32291
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 12, CLAF125	3110	3110	Charcoal	CAMS-?	10170	40	-25	11643	11825	11945	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32293
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 13, CLAF132	658	658	Charcoal	CAMS-?	3590	35	-25	3729	3894	4059	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32295
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 10, CLAF105	3803	3803	Organic sediment, bulk	CAMS-?	28200	290	-25	31577	32329	33203	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32287
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 11, CLAF111	3582	3582	Organic sediment, bulk	CAMS-?	27250	1180	-25	29231	31518	34045	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32288
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 12, CLAF121	3201	3201	Organic sediment, bulk	CAMS-?	10510	35	-25	12283	12551	12670	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32289
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 12, CLAF122	4116	4116	Organic sediment, bulk	CAMS-?	29290	1570	-25	30436	33537	36525	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32290
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 12, CLAF124	1136	1136	Organic sediment, bulk	CAMS-?	6360	40	-25	7167	7285	7420	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32292
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 13, CLAF131	457	457	Organic sediment, bulk	CAMS-?	2665	35	-25	2741	2773	2848	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32294
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 13, CLAF133	869	869	Organic sediment, bulk	CAMS-?	2155	35	-25	2002	2142	2305	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32296
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 13, CLAF134	1087	1087	Organic sediment, bulk	CAMS-?	5145	35	-25	5753	5910	5992	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32297
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 13, CLAF135	1225	1225	Organic sediment, bulk	CAMS-?	6820	35	-25	7581	7648	7708	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32298
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 13, CLAF136	2718.5	2718.5	Organic sediment, bulk	CAMS-?	10425	35	-25	12100	12305	12595	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32299
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 03, CLAF310	440	440	Organic sediment, bulk	CAMS-?	2455	35	-25	2362	2536	2705	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32459
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 06, CF65-BS	2731	2731	Organic sediment, bulk	CAMS-?	11880	35	-28	13605	13713	13797	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32468
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 06, CLAF63	2170	2170	Charcoal	CAMS-?	9750	35	-25	11113	11197	11242	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32273
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 06, CLAF64	2469.5	2469.5	Charcoal	CAMS-?	9090	35	-25	10188	10238	10363	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32274
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 07, CLAF71	777	777	Charcoal	CAMS-?	2215	35	-25	2126	2228	2332	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32276
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 07, CLAF72	1499	1499	Charcoal	CAMS-?	5730	35	-25	6409	6525	6632	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32277
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 07, CLAF73	1773	1773	Charcoal	CAMS-?	7055	35	-25	7793	7887	7963	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32278
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 08, CLAF81	287	287	Charcoal	CAMS-?	2245	30	-25	2153	2227	2339	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32280
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 08, CLAF83	3170	3170	Charcoal	CAMS-?	42600	1100	-25	43233	45231	47107	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32282
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 09, CLAF91	1143	1143	Charcoal	CAMS-?	6915	40	-25	7670	7742	7838	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32283
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 02, CLAF23	2980	2980	Charcoal	CAMS-?	9330	35	-25	10413	10538	10658	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32457
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 03, CLAF33	1626	1626	Charcoal	CAMS-?	6060	35	-25	6795	6912	7147	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32460
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 03, CLAF35	3150	3150	Charcoal	CAMS-?	17770	60	-25	21367	21595	21843	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32462
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 03, CLAF36	3343.5	3343.5	Charcoal	CAMS-?	10425	50	-25	12051	12306	12607	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32463
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 06, CLAF65	2467	2467	Organic sediment, bulk	CAMS-?	8685	35	-25	9542	9623	9731	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32275

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County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 07, CLAF74	2200	2200	Organic sediment, bulk	CAMS-?	11900	80	-25	13525	13759	14021	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32279
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 08, CLAF82	404	404	Organic sediment, bulk	CAMS-?	2045	35	-25	1890	1990	2109	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32281
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 02, CLAF22	389	389	Organic sediment, bulk	CAMS-?	2625	35	-25	2718	2750	2843	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32456
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 03, CLAF31	841	841	Organic sediment, bulk	CAMS-?	3595	40	-25	3727	3901	4074	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32458
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 03, CLAF34	2408	2408	Organic sediment, bulk	CAMS-?	10320	40	-25	11937	12122	12463	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32461
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 03, CLAF37	3275	3275	Organic sediment, bulk	CAMS-?	9915	35	-25	11234	11309	11599	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32464
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 03, CLAF38	259	259	Organic sediment, bulk	CAMS-?	2315	45	-25	2154	2332	2464	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32465
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 06, CLAF61	2081	2081	Organic sediment, bulk	CAMS-?	7875	35	-25	8551	8673	8974	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32469
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 06, CLAF62	188	188	Organic sediment, bulk	CAMS-?	1405	35	-25	1281	1316	1361	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32470
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 06, CF62	2622	2622	Charcoal	CAMS-?	11985	40	-25	13786	13902	14023	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32466
LAN		378262	3760458	42	Floodplain	Compton, Standard Ave.	Borehole 06, CF63	2744	2744	Charcoal	CAMS-?	11650	35	-25	13447	13510	13594	calib 8.10 IntCal20	Leon, Lorraine A. 2009	32467
LAN		399809	3777061	182	Fan, fault	Eaton Blanche Park	Raymond Fault, Sunny Slope trench 7, near southeast corner of reservoir; Urban land-Palmview-Tujunga complex, 0 to 5 percent slopes	330	330	Organic silty clay	WSU-1836	25500	640		28547	29727	31051	calib 8.10 IntCal20	Crook, R. C. 1978	7867
LAN		377246	3774169		Fan	Hollywood and Wilcox	Core 1, Unit 2, 2Ab horizon	320	320	Soil, SOC	UCIAMS-178462	2540	15		2519	2709	2739	calib 8.10 IntCal20	Allen, Christopher F. 2016	29986
LAN		375459	3774509	153	Fan	Hollywood Fault	Unit 4, CP-G 27.1 ft.	826	826	Soil, SOC	AA-019155	11940	100		13596	13821	14048	calib 8.10 IntCal20	Dolan, James F. 2000	32167
LAN		375459	3774509	153	Fan	Hollywood Fault	Unit 1, CP-H 6.35 ft.	194	194	Charcoal, detrital	AA-019156	2950	65		2888	3110	3334	calib 8.10 IntCal20	Dolan, James F. 2000	32160
LAN		375459	3774509	153	Fan	Hollywood Fault	Unit 2, CP-G 8.8-9 ft.	268	274.32	Soil, SOC	AA-021024	3880	117		3928	4296	4790	calib 8.10 IntCal20	Dolan, James F. 2000	32162
LAN		375459	3774509	153	Fan	Hollywood Fault	Unit 3, CP-G 17.5-18 ft.	533	548.64	Soil, SOC	AA-021025	6166	169		6670	7042	7422	calib 8.10 IntCal20	Dolan, James F. 2000	32163
LAN		375459	3774509	153	Fan	Hollywood Fault	Unit 4, CP-G 26-26.5 ft.	792	808	Soil, SOC	AA-021026	10706	133		12104	12676	12969	calib 8.10 IntCal20	Dolan, James F. 2000	32165
LAN		375459	3774509	153	Fan	Hollywood Fault	Unit 5, CP-G 35.5-36.3 ft.	1082	1106	Soil, SOC	AA-021027	18809	236		22261	22722	23201	calib 8.10 IntCal20	Dolan, James F. 2000	32168
LAN		375459	3774509	153	Fan	Hollywood Fault	Unit 4, CP-D 27.5 ft.	838	838	Soil, SOC	AA-021029	10000	126		11206	11529	11932	calib 8.10 IntCal20	Dolan, James F. 2000	32164
LAN		375459	3774509	153	Fan	Hollywood Fault	Unit 4, CP-I 27.5 ft.	838	838	Soil, SOC	AA-021030	11172	132		12780	13072	13310	calib 8.10 IntCal20	Dolan, James F. 2000	32166
LAN		375459	3774509	153	Fan	Hollywood Fault	Unit 1, B-15/7 ft.	213	213	Soil, SOC	Beta-057677	3170	70		3212	3387	3560	calib 8.10 IntCal20	Dolan, James F. 2000	32161
LAN		382738	3767342	71	Floodplain	L.A. Event Center	Bore hole 1	1504	1504	Charcoal	CF11	10105	40	-25	11402	11697	11868	calib 8.10 IntCal20		29889
LAN		382738	3767342	71	Floodplain	L.A. Event Center	Bore hole 2	300	300	Organic sediment	CF21-BS	890	90	-25	672	807	956	calib 8.10 IntCal20		29904
LAN		382738	3767342	71	Floodplain	L.A. Event Center	Bore hole 3	2175	2175	Charcoal	CF31	11995	35	-25	13792	13909	14023	calib 8.10 IntCal20		29880
LAN		382738	3767342	71	Floodplain	L.A. Event Center	Bore hole 3	2081	2081	Organic sediment	CF32-BS	10085	50	-28	11353	11642	11828	calib 8.10 IntCal20		29857
LAN		382738	3767342	71	Floodplain	L.A. Event Center	Bore hole 3	2081	2081	Organic sediment	CF32-H	12240	70	-25	13889	14179	14809	calib 8.10 IntCal20		29902
LAN		382738	3767342	71	Floodplain	L.A. Event Center	Bore hole 3	1138	1138	Charcoal	CF33	7940	50	-25	8607	8795	8988	calib 8.10 IntCal20		29899
LAN		382738	3767342	71	Floodplain	L.A. Event Center	Bore hole 4	152	152	Organic sediment	CF41-BS	2345	35	-25	2185	2357	2608	calib 8.10 IntCal20		29873
LAN		382738	3767342	71	Floodplain	L.A. Event Center	Bore hole 4	1207	1207	Organic sediment	CF42-BS	6135	40	-25	6902	7028	7160	calib 8.10 IntCal20		29885
LAN		382738	3767342	71	Floodplain	L.A. Event Center	Bore hole 4	1545	1545	Charcoal	CF43	7475	40	-25	8192	8286	8369	calib 8.10 IntCal20		29886
LAN		382738	3767342	71	Floodplain	L.A. Event Center	Bore hole 4	2109	2109	Organic sediment	CF44-BS	8480	80	-25	9280	9481	9597	calib 8.10 IntCal20		29903
LAN		382738	3767342	71	Floodplain	L.A. Event Center	Bore hole 4	2678	2678	Organic sediment	CF46-BS	10290	35	-25	11832	12024	12446	calib 8.10 IntCal20		29878
LAN		382738	3767342	71	Floodplain	L.A. Event Center	Bore hole 4	304	304	Organic sediment	CF47	1845	35	-25	1632	1755	1863	calib 8.10 IntCal20		29871
LAN		382738	3767342	71	Floodplain	L.A. Event Center	Bore hole 5	287	287	Organic sediment	CF51-BS	1955	35	-25	1747	1882	1990	calib 8.10 IntCal20		29872
LAN		382738	3767342	71	Floodplain	L.A. Event Center	Bore hole 5	501	501	Organic sediment	CF52-BS	2965	45	-25	2967	3129	3324	calib 8.10 IntCal20		29894
LAN		382738	3767342	71	Floodplain	L.A. Event Center	Bore hole 5	816	816	Organic sediment	CF53-BS	4740	50	-25	5325	5480	5584	calib 8.10 IntCal20		29898
LAN		382738	3767342	71	Floodplain	L.A. Event Center	Bore hole 5	2525	2525	Organic sediment	CF55-BS	7800	60	-25	8420	8574	8770	calib 8.10 IntCal20		29901
LAN		382738	3767342	71	Floodplain	L.A. Event Center	Bore hole 5	584	584	Organic sediment	CF56-BS	4890	35	-25	5493	5628	5715	calib 8.10 IntCal20		29874
LAN		382738	3767342	71	Floodplain	L.A. Event Center	Bore hole 5	602	602	Charcoal	CF57	5925	45	-25	6656	6748	6883	calib 8.10 IntCal20		29895
LAN		382738	3767342	71	Floodplain	L.A. Event Center	Bore hole 5	1133	1133	Charcoal	CF58	7590	35	-25	8343	8393	8446	calib 8.10 IntCal20		29875
LAN		382738	3767342	71	Floodplain	L.A. Event Center	Bore hole 5	2048	2048	Charcoal	CF59	12215	40	-25	14037	14119	14309	calib 8.10 IntCal20		29892
LAN		382738	3767342	71	Floodplain	L.A. Event Center	Bore hole 6	1931	1931	Organic sediment	CF61-BS	9205	35	-25	10249	10359	10493	calib 8.10 IntCal20		29876
LAN		382738	3767342	71	Floodplain	L.A. Event Center	Bore hole 6	1931	1931	Organic sediment	CF61-H	8870	270	-25	9306	9555	10662	calib 8.10 IntCal20		29909
LAN		382738	3767342	71	Floodplain	L.A. Event Center	Bore hole 6	2622	2622	Charcoal	CF62	11985	40	-25	13786	13902	14023	calib 8.10 IntCal20		29891
LAN		382738	3767342	71	Floodplain	L.A. Event Center	Bore hole 6	2744	2744	Charcoal	CF63	11650	35	-25	13447	13510	13594	calib 8.10 IntCal20		29879
LAN		382738	3767342	71	Floodplain	L.A. Event Center	Bore hole 6	396	396	Organic sediment	CF64-BS	1140	35	-25	958	1032	1175	calib 8.10 IntCal20		29870
LAN		382738	3767342	71	Floodplain	L.A. Event Center	Bore hole 6	2731	2731	Organic sediment	CF65-BS	11880	35	-28	13605	13713	13797	calib 8.10 IntCal20		29856
LAN		382738	3767342	71	Floodplain	L.A. Event Center	Bore hole 6	2731	2731	Organic sediment	CF65-H	12080	35	-25	13809	13926	14060	calib 8.10 IntCal20		29881
LAN		382738	3767342	71	Floodplain	L.A. Event Center	Bore hole 7	198	198	Organic sediment	CF71-BS	1650	35	-28	1412	1533	1688	calib 8.10 IntCal20		29855
LAN		382738	3767342	71	Floodplain	L.A. Event Center	Bore hole 7	198	198	Organic sediment	CF71-H	2010	60	-25	1749	1947	2120	calib 8.10 IntCal20		29900
LAN		382738	3767342	71	Floodplain	L.A. Event Center	Bore hole 8	1532	1532	Organic sediment	CF81-BS	8125	40	-25	8991	9068	9263	calib 8.10 IntCal20		29887
LAN		374422	3761443	58	Fan, fault	L.A., Ladera Park	Core or trench? Fossil shell?			Shell-m, marine fossil	I-04867	36200	2750		34568	39484	43303	calib 8.10 Marine20; 70±65	Sieh, Kerry 1978	7863

Appendix D-3: Geological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN		374623	3762893	135	Fan, fault	L.A., Norman Houston Park	Core or trench?			Charcoal	I-04766	28450	2600		30853	32726	34701	calib 8.10 IntCal20	Sieh, Kerry 1978	7862
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 3			Asphalt	89	28000	280		31331	32010	32963	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Hubbs 1960	664
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea samples of unknown provenance-La Brea			Asphalt	344	34000	-					N/A - inexact age	O'Keefe, F. R. 2009, Marcus 1984	588
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea samples of unknown provenance-La Brea			Wood,	773	40000	400		42700	43213	44073	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	606
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 13; Grid E-11	335.28	335.28	Bone, Smilodon fatalis femur	1292	14950	430		17090	18185	19060	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Berger 1968	738
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 13; Grid F-10	441.96	441.96	Bone, Smilodon fatalis femur	12921	15300	200		18226	18568	18923	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Berger 1968	735
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid H-9	414.53	414.528	Bone, metatarsal Arctodus simus	54077	28130	330		31372	32241	33187	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Harris , O'Keefe, F. R. 2009, Harris	661
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea samples of unknown provenance-?			Wood, Juniperus sp.	101800	45010	920		45496	47306	49248	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Ward 2005	592
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 3; Grid E-5			Bone, Smilodon fatalis femur	1292A	21400	560		24327	25642	26922	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Berger 1968	709
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 3; Grid C-4			Bone, Smilodon fatalis femur	1292B	12650	160		14289	15002	15543	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Berger 1968	766
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 3; Grid E-2			Bone, Smilodon fatalis femur	1292C	14500	190		17144	17700	18207	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Berger 1970	743
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 4; Grid D-2			Bone, Smilodon fatalis femur	1292D	28000	1400		29687	32336	35176	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Berger 1968	657
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 3; Grid C-4			Bone, Smilodon fatalis femur	1292E	14400	2100		12109	17232	22365	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Berger 1969	751
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 4; Grid D-2+4			Bone, Smilodon fatalis femur	1292G	26700	900		29141	30845	32941	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Berger 1968	680
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 60; Grid C-10			Bone, Smilodon fatalis	1292H	23700	600		26518	27960	29177	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Berger 1968	697
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 3			Bone, Smilodon fatalis femur	1292J	20500	900		22601	24641	26429	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Berger 1968	713
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 3; Grid E-4			Bone, Smilodon fatalis femur	1292K	19300	395		22428	23284	24090	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Berger 1968	723
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 4; Grid C-2			Bone, Smilodon fatalis tibia	1292L	15200	800		16428	18422	20306	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Berger 1968	737
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 4			Wood,	773A	33700	1600		35250	38414	41485	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Berger 1966	621
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 9			Wood,	773B	40000	400		42700	43213	44073	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Berger 1966	605
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 16			Wood,	773E	40000	400		42700	43213	44073	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Berger 1966	604
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 16	198.12	198.12	Wood,	773G	40000	400		42700	43213	44073	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Berger 1966	603
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 16, Caved			Bone, Canis latrans	ACRF-814	29860	190		34029	34360	34655	calib 8.10 IntCal20		33599
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Bone, Canis latrans tooth	ACRF-815	46800	2500		46799	49398	52301	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Harris , O'Keefe, F. R. 2009, Harris	596
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 4; Grid Caved			Bone, ovis, Ovis sp. Atlas	ACRF-816	185	30		1	181	297	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Harris	785
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid F-11	350.52	350.52	Bone, Cervical VI Arctodus simus	ACRF-819	28350	470		31387	32559	33805	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Harris , O'Keefe, F. R. 2009, Harris	649
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid N-11	274.32	274.33	Bone, humerus Arctodus simus	ACRF-820	27330	140		31121	31321	31620	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Harris , O'Keefe, F. R. 2009, Harris	675
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 60; Grid E-12	548.64	548.64	Bone, metatarsal Equus sp.	ACRF-826	26320	240		30119	30580	31024	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Harris , O'Keefe, F. R. 2009, Harris	681
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 3; Grid D-5	563.88	563.88	Bone, Smilodon fatalis femur	ACRF-827	14360	35		17328	17456	17768	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Harris	747
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 61-67; Grid Caved			Bone, Canis petrolei mandible	ACRF-829	6360	30		7169	7284	7416	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Harris , O'Keefe, F. R. 2009, Harris	782
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 3; Grid E-2	350.52	350.52	Bone, Equus sp. Phalanx	ACRF-830	14250	40		17113	17320	17429	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Harris	749
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 4, D-2	243	244	Bone, Equus sp.	ACRF-831	28600	190		32076	32830	33552	calib 8.10 IntCal20		33600
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 3; Grid C-3	533.4	533.4	Bone, Equus sp. Phalanx	ACRF-832	14745	40		17918	18089	18216	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Harris	740
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 3; Grid E-2	274.32	274.32	Bone, Equus sp. Phalanx	ACRF-833	12820	90		15057	15314	15600	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Harris	764

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County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea Tar Pits			Wood,	CT-0?	16250	2000		17400	19710	22116	calib 8.10 IntCal20	Stuiver, M. 1960, Johnson, D. E. 1977, Johnson, D. E. 1977, Ericson, J. E. 1972, Howard, H. 1960, Shumway, G. 1961, Hubbs, C. L. 1960	7705
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea Pits			Wood,	CT-0?	16400	2000		17568	19886	22304	calib 8.10 IntCal20	Stuiver, M. 1960, Johnson, D. E. 1977, Johnson, D. E. 1977, Ericson, J. E. 1972, Howard, H. 1960, Shumway, G. 1961, Hubbs, C. L. 1960	7859
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 3, E-3	670	762	Bone, Canis dirus	GEO	9860	550		9824	11385	12819	calib 8.10 IntCal20		33618
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 16	243	366	Bone, Canis dirus humerus	GEO	10710	320		11411	12547	13291	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	775
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Wood, Juniperus sp.	L-0003	16590	45		19892	20043	20205	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Ward 2005	728
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea samples of unknown provenance-La Brea			Wood, Juniperus sp.	L-0004	49600	2900				N/A - too old to calibrate	O'Keefe, F. R. 2009, Ward 2005		591
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 13			Wood, Juniperus sp.	L-0005	7665	35		8392	8448	8538	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Ward 2005	779
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea samples of unknown provenance-?			Wood, Juniperus sp.	L-0008	14760	50		17918	18099	18227	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Ward 2005	739
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea samples of unknown provenance-?			Wood, Juniperus sp.	L-0009	14710	45		17873	18049	18198	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Ward 2005	741
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea samples of unknown provenance-?			Wood, Juniperus sp.	L-0010	16050	60		19182	19378	19529	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Ward 2005	730
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 3			Wood, Juniperus sp.	L-0013	36840	430		41105	41670	42177	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Ward 2005	612
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 16	365.76	365.76	Wood, Juniperus sp.	L-0014	55000	3000				N/A - too old to calibrate	O'Keefe, F. R. 2009, Ward 2005		589
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 5			Wood, Juniperus sp.	L-0016	15720	50		18870	18974	19103	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Ward 2005	732
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 81			Wood, Juniperus sp.	L-0017	24130	100		27927	28304	28638	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Ward 2005	694
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 13			Wood, Juniperus sp.	L-0018	14160	50		17069	17213	17367	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Ward 2005	752
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 9			Wood, Juniperus sp.	L-0019	12450	40		14315	14609	14940	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Ward 2005	767
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea samples of unknown provenance-La Brea			Wood, Juniperus sp.	L-0022	35820	380		40071	40914	41579	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Ward 2005	614
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91			Wood, Juniperus sp.	L-0024	38880	550		42157	42605	43107	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Ward 2005	608
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 77			Wood, Juniperus sp.	L-0025	30370	200		34409	34773	35243	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Ward 2005	632
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 60			Wood, Juniperus sp.	L-0026	28100	170		31667	32068	32882	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Ward 2005	663
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 3			Bone, Mammut americanum	LACM-60247	14350	30	-20	17314	17434	17765	calib 8.10 IntCal20		33621
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 61-67			Bone, Smilodon fatalis	LACM-K3569	12515	25	-19.4	14530	14859	15011	calib 8.10 IntCal20		33622
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 61-67			Bone, Smilodon fatalis	LACM-K3593	11895	30	-18.7	13605	13759	13976	calib 8.10 IntCal20		33623
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 11			Bone, Mammuthus columbi	LACM-P23-1316	36770	750	-19.4	40453	41546	42379	calib 8.10 IntCal20		33624
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit 1			Bone, Sylvilagus sp.	LACM-P23-14738	36100	1100	-21.2	39365	40988	42276	calib 8.10 IntCal20		29938
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit 1			Bone, S. bachmani	LACM-P23-18270	35440	580	-22.5	39429	40535	41490	calib 8.10 IntCal20		29929
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit 1			Bone, S. bachmani	LACM-P23-22009	35150	580	-22.4	39232	40277	41288	calib 8.10 IntCal20		29930
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 1			Bone, Canis dirus	LACM-P23-2294	34660	220	-18	39351	39798	40388	calib 8.10 IntCal20		33625
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit 1			Bone, S. audubonii	LACM-P23-25476	36050	630	-21.4	39929	41068	42012	calib 8.10 IntCal20		29934
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit 1			Bone, Sylvilagus sp.	LACM-P23-2693	33320	750	-21.9	36264	38075	39770	calib 8.10 IntCal20		29932
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit 1			Bone, S. audubonii	LACM-P23-28903	33830	480	-21.1	37243	38687	39852	calib 8.10 IntCal20		29940
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit 1			Bone, S. audubonii	LACM-P23-30238	35780	600	-21.5	39735	40836	41848	calib 8.10 IntCal20		29933

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LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit 1			Bone, S. audubonii	LACM-P23-31269	46200	2200	-20.5	46302	48627	51359	calib 8.10 IntCal20		29945
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit 1			Bone, S. audubonii	LACM-P23-31423	35420	580	-21.3	39415	40517	41468	calib 8.10 IntCal20		29935
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 1			Bone, Panthera atrox	LACM-P23-4096	34740	390	-18.4	39200	39917	40717	calib 8.10 IntCal20		33626
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit 1			Bone, Sylvilagus sp.	LACM-P23-4307	35800	650	-20.9	39686	40844	41902	calib 8.10 IntCal20		29943
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit 1			Bone, S. audubonii	LACM-P23-5233	35750	610	-21.3	39698	40807	41840	calib 8.10 IntCal20		29936
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 1			Bone, Smilodon fatalis	LACM-P23-967	34270	540	-18	37633	39335	40546	calib 8.10 IntCal20		33627
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91			Bone, Canis dirus	LACM-R14493	14040	50		16962	17079	17326	calib 8.10 IntCal20		33628
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91			Bone, Canis dirus	LACM-R14493	14280	60	-18.9	17086	17356	17704	calib 8.10 IntCal20		33629
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91			Bone, Canis dirus	LACM-R15406	41800	800		43192	44575	45762	calib 8.10 IntCal20		33630
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91			Bone, Smilodon fatalis	LACM-R16695	27350	120		31135	31327	31613	calib 8.10 IntCal20		33631
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91			Bone, Smilodon fatalis	LACM-R16695	27280	230	-18	31059	31326	31697	calib 8.10 IntCal20		33632
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91			Bone, Smilodon fatalis	LACM-R34802	28170	160		31738	32176	32919	calib 8.10 IntCal20		33633
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91			Bone, Smilodon fatalis	LACM-R34802	28200	280	-18.2	31600	32324	33177	calib 8.10 IntCal20		33634
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91			Bone, Smilodon fatalis	LACM-R42645	44300	850		45125	46654	48287	calib 8.10 IntCal20		33635
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91			Bone, Smilodon fatalis	LACM-R42645	40660	960	-18.8	42552	43744	44991	calib 8.10 IntCal20		33636
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91			Bone, Canis dirus	LACM-R49462	43000	720		44461	45478	46769	calib 8.10 IntCal20		33637
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91			Bone, Canis dirus	LACM-R49462	41300	1200	-18.5	42658	44188	45890	calib 8.10 IntCal20		33638
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 3; Grid D-2	365.76	365.76	Wood, Cupressus sp.	LJ-0055	14440	300		16776	17614	18277	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Hubbs 1960	746
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea Pits			need	LJ-0089	28000	-				N/A - inexact age		Stuiver, M. 1960, Howard, H. 1960, Shumway, G. 1961, Ericson, J. E. 1972, Johnson, D. E. 1977, Hubbs, C. L. 1960	7855
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea Tar Pits			Asphalt, fresh tar	LJ-0344	34000	3400		36493	38792	40929	calib 8.10 IntCal20	Ericson, J. E. 1972, Bright, M. 1965, Hubbs, C. L. 1962	7698
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 3; Grid E-3	670	762	Bone, Canis dirus humerus	QC-(?), Queens College, NY	9860	550		9824	11385	12819	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	776
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 60			Bone, tibia Equus sp.	QC-(?), Queens College, NY	22330	1060		24315	26560	28643	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	707
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 16	100	200	Bone, metatarsal Bison antiquus	QC-277II	32850	-				N/A - inexact age		O'Keefe, F. R. 2009, Marcus 1984	624
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 16	365.76	426.72	Bone, metatarsal Bison antiquus	QC-278	24400	535		27674	28599	29856	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	692
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 3; Grid E-3	182.88	182.88	Bone, Smilodon fatalis femur	QC-279	13035	275		14533	15601	16470	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	763
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 60	243.84	274.32	Bone, Smilodon fatalis	QC-280	27900	2700		27013	32270	37635	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	660
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 3	792.48	792.48	Bone, Smilodon fatalis femur	QC-283	19555	820		21886	23589	25615	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	719
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 61-67; Grid F-10	487	563	Bone, Smilodon fatalis	QC-302A	11640	135		13242	13503	13787	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	772
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 61-67	487.68	563.88	Bone, Smilodon fatalis	QC-302B	11980	260		13329	13929	14848	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	770
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 13; Grid G-10	396.24	396.24	Bone, Smilodon fatalis femur	QC-339	15360	480		17423	18647	19787	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	734
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91			Wood,	QC-349A	30470	1090		32164	34864	36982	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	631
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91			Wood,	QC-349B	30870	1650		31813	35338	39118	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	628
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 60; Grid F-11	365.76	365.76	Bone, rib Paramylodon harlani	QC-361	7600	195		8016	8410	8981	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	780
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 60	365.76	365.76	Bone, rib Paramylodon harlani	QC-361	23420	350		27089	27620	28478	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	700
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 60	274	289	Bone, metapodial Equus sp.	QC-365	28850	288		32173	33260	34052	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	637
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 60	274.32	289.55	Bone, metapodial Equus sp.	QC-365	24460	245		28016	28680	29164	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	691
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 16	137.16	137.16	Bone, metatarsal Bison antiquus	QC-371	12275	775		12740	14555	16660	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	768
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid D-13	457.2	457.2	Bone, rib Paramylodon harlani	QC-381	19480	550		22339	23479	24791	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	720
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91	182	243	Bone, radius Equus sp.	QC-384	8850	455		8777	9960	11193	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	777
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 4; Grid F-4+5	457.2	457.2	Bone, Smilodon fatalis femur	QC-386	26995	4000		23936	31383	39235	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	678

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County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid T-22	243.84	243.84	Bone, rib Paramylodon harlani	QC-390	20450	460		23437	24617	25737	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	712
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 3; Grid E-4	30	137	Bone, Smilodon fatalis femur	QC-401	13820	840		14208	16644	18686	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	759
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 81			Bone, tibia Equus sp.	QC-405	14415	3250		9547	17156	24225	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	750
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 81			Bone, tibia Equus sp.	QC-405	10940	510		11264	12771	13802	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	774
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 60; Grid C-12	426.72	426.72	Bone, tibia Equus sp.	QC-410	24900	3360		22662	29091	35367	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	688
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 4; Grid A-5	274.32	274.32	Bone, Equus sp. Femur	QC-412	22000	1200		23780	26207	28615	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	708
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 61-67; Grid B-9	548	609	Bone, Smilodon fatalis	QC-413	11130	275		12495	13042	13592	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	773
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 3; Grid E-3	182.88	182.88	Bone, Smilodon fatalis humerus	QC-414	13745	275		15846	16637	17372	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	758
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 13; Grid F-11	609	701	Bone, Bison antiquus femur	QC-420	14310	920		14571	17269	19522	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	753
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 3			Wood, Cupressus sp.	QC-422A	15200	150		18238	18488	18778	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	736
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 3			Wood, Cupressus sp.	QC-422B	14500	140		17342	17697	18155	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	742
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea samples of unknown provenance-La Brea	320	320	Wood,	QC-423	38600	-				N/A - inexact age	O'Keefe, F. R. 2009, Marcus 1984	610	
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 9			Wood,	QC-424	34285	1675		35760	38960	41973	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	619
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 77			Wood,	QC-425	29470	1150		31339	33722	35933	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	636
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 4; Grid G-3	150	150	Wood,	QC-426	35300	2500		34951	39617	43042	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	618
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 16			Wood,	QC-427	19485	275		22923	23453	24074	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	721
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 16	518.16	518.16	Wood,	QC-427R	18430	500		20977	22301	23677	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	726
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 16	365.76	365.76	Wood,	QC-428	33870	1350		35770	38605	41310	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	620
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea samples of unknown provenance-La Brea			Wood,	QC-429	13120	230		15068	15734	16405	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	762
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid J-3	182.88	182.88	Bone, Equus sp.	QC-430	26140	2200		26293	30398	34618	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	684
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid J-13	30.48	30.48	Bone, rib Smilodon fatalis	QC-431	22355	3400		19555	26375	32903	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	706
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid D-7	487.68	487.68	Bone, humerus Smilodon fatalis	QC-435	20900	2700		19366	24860	30053	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	711
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 2051	487.68	487.68	Bone, humerus Smilodon fatalis	QC-435	18475	320		21473	22400	23025	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	725
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid G-5	207.26	207.26	Bone, humerus Smilodon fatalis	QC-436	20410	2450		19239	24365	29127	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	714
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid Q-19	487	488	Bone, ulna Smilodon fatalis	QC-438	29760	298		33588	34266	34783	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	634
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 2051	487.68	487.68	Bone, tibia Smilodon fatalis	QC-438	28250	1030		30447	32556	34565	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	647
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid H-19	457.2	457.2	Bone, Smilodon fatalis	QC-440	23850	1200		25824	28123	30378	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	696
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid D-7	518.16	518.16	Bone, metacarpal Camelops hesternus	QC-442	20300	1750		20488	24330	27780	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	715
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid D-7	518.16	518.16	Bone, metacarpal Camelops hesternus	QC-442	17630	1400		18224	21311	24499	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	727
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid N-21	152.4	152.4	Bone, rib Paramylodon harlani	QC-443	22890	500		25997	27123	27925	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	704
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid F-7	268	274	Wood,	QC-658	35735	4050		32294	39550	45472	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	616
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Page Salvage			Bone, fragments	QC-684	6400	140		6991	7304	7570	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	781
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 10	167	168	Bone, Ursus arctos femur	QC-916R	5270	155		5660	6050	6389	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	784
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea samples of unknown provenance-La Brea			Wood,	QU-724	13430	210		15596	16182	16865	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	761

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County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 16			Wood,	QU-725	37310	-					N/A - inexact age	O'Keefe, F. R. 2009, Marcus 1984	611
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 16			Wood,	QU-767	38780	388		42255	42552	42881	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	609
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid M-4	198	213	Bone, Canis dirus tibia	R-15199	44650	2830		45083	46987	48911	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	593
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid I-6	320	335	Bone, Canis dirus humerus	R-29823	28580	380		31777	32808	33888	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	643
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid M-11	350	366	Bone, Canis dirus tibia	SR-5271	28310	170		31856	32443	33055	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	655
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid L-11	259	274	Bone, Canis dirus radius	SR-5272	14040	50		16962	17079	17326	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	755
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid L-11	320	335	Bone, Canis dirus humerus	SR-5273	39090	580		42148	42700	43769	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	607
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid H-7			Bone, Canis dirus humerus	SR-5274	27660	120		31260	31564	31819	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	670
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid H-8			Bone, humerus Smilodon fatalis	SR-5275	28170	160		31738	32176	32919	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	662
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid L-10	259	274	Bone, tibia Smilodon fatalis	SR-5276	25710	140		29716	30015	30289	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	686
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid H-7	320.04	335.28	Bone, Canis dirus tibia	SR-5444	23060	90		27202	27325	27601	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	703
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid M-4	228	243	Bone, Canis dirus radius	SR-5445	27560	130		31211	31473	31746	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	672
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid I-6	350	366	Bone, Canis dirus humerus	SR-5446	41940	790		43296	44691	45865	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	599
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid I-7	259	274	Bone, Canis dirus	SR-5447	28360	160		31917	32499	33087	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	651
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid H-8	259	274	Bone, humerus Smilodon fatalis	SR-5449	27220	140		31078	31236	31563	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	676
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid I-6	289	304	Bone, radius Smilodon fatalis	SR-5586	27350	120		31135	31327	31613	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	674
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid I-7	289	304	Bone, tibia Smilodon fatalis	SR-5587	28320	140		31903	32452	33021	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	654
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid L-10	289	304	Bone, Caudal vertebrae Smilodon fatalis	SR-5588	25740	100		29894	30035	30186	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	685
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid M-11	320	335	Bone, Canis dirus humerus	SR-5589	28070	130		31642	31989	32849	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	665
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid H-8			Bone, metacarpal Smilodon fatalis	SR-5590	44300	850		45125	46654	48287	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	595
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid H-7	350.52	365.76	Bone, Canis dirus innominate	SR-5591	43000	720		44461	45478	46769	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	598
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid M-11	228	243	Bone, Astragalus Smilodon fatalis	SR-5822	24930	240		28722	29174	29848	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	690
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid H-6	259	274	Bone, tibia Smilodon fatalis	SR-5823	28150	360		31318	32286	33261	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	659
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid L-10	320	335	Bone, humerus Smilodon fatalis	SR-5825	26150	280		29992	30449	30990	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	682
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid L-11	289	304	Bone, Cakaneum Smilodon fatalis	SR-5826	26120	280		29970	30421	30982	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	683
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid I-7	320	335	Bone, Canis dirus radius	SR-5827	28510	380		31720	32714	33813	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	645
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid M-4	213	228	Bone, Canis dirus tibia	SR-5999	41800	800		43192	44575	45762	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	600
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid I-6	259	274	Bone, radius Smilodon fatalis	SR-6000	28240	160		31801	32322	32978	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	658
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid M-11	289	304	Bone, Canis dirus vertebrae	SR-6001	35800	400		40016	40893	41592	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	615
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid I-7	335	350	Bone, Canis dirus humerus	SR-6002	28620	200		32091	32871	33610	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	640
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid I-10	350	366	Bone, Thoracic vertebrae Smilodon fatalis	SR-6003	27820	150		31316	31730	32070	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	668
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid L-11	350	366	Bone, Astragalus Smilodon fatalis	SR-6004	27620	150		31217	31522	31816	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	671
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid H-7			Bone, Canis dirus innominate	SR-6005	44600	1100		45058	46943	48852	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	594

Appendix D-3: Geological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid I-6	259	274	Bone, Canis dirus radius	SR-6136	27460	130		31174	31409	31680	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	673
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid I-6	289	304	Bone, Canis dirus radius	SR-6137	28430	140		32017	32562	33127	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	646
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid M-4	228	243	Bone, Canis dirus radius	SR-6138	41010	580		43004	43936	44739	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	601
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid I-6	274	289	Bone, Canis dirus radius	SR-6139	28400	130		32005	32534	33084	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	648
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid I-6	350	366	Bone, Canis dirus radius	SR-6140	27890	130		31448	31798	32150	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	666
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid I-6	350	36	Bone, Canis dirus radius	SR-6141	28270	130		31864	32367	32964	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	656
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid I-6	365	381	Bone, Canis dirus radius	SR-6142	27860	140		31372	31770	32116	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	667
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid I-6	381	396	Bone, Canis dirus radius	SR-6143	27680	140		31250	31582	31865	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	669
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid I-6	335	350	Bone, Canis dirus radius	SR-6144	28330	200		31829	32472	33121	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	653
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid I-6	320	335	Bone, Canis dirus radius	SR-6146	26840	120		30895	31058	31178	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	679
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid I-8	335	350	Bone, Cuboid Nothrotheriops shastensis	SR-6711	28590	240		32001	32807	33646	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	642
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid K-8	350	366	Bone, Astragalus Nothrotheriops shastensis	SR-6712	28530	240		31930	32705	33552	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	644
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid I-11	320	335	Bone, Cakaneum Nothrotheriops shastensis	SR-6713	28350	240		31776	32501	33218	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	652
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid H-7	259	274	Bone, humerus Puma concolor	SR-6714	28650	250		32035	32921	33734	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	639
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid I-11	304	320	Bone, radius Puma concolor	SR-6715	28650	240		32053	32923	33717	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Friscia 2008	638
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 61-67			Bone, Mammut americanum	UCIAMS-091642	14250	35		17118	17323	17426	calib 8.10 IntCal20		33648
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 61-67			Bone, Mammut americanum	UCIAMS-091674	14050	45		16985	17091	17324	calib 8.10 IntCal20		33649
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 61-67			Bone, Mammut americanum	UCIAMS-091676	12030	40	-20.7	13800	13914	14030	calib 8.10 IntCal20		33650
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 3			Bone, Smilodon fatalis	UCIAMS-091679	12645	40	-19	14942	15072	15214	calib 8.10 IntCal20		33651
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 61-67			Bone, Smilodon fatalis	UCIAMS-091680	11335	35	-19.1	13128	13220	13306	calib 8.10 IntCal20		33652
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91			Bone, Smilodon fatalis	UCIAMS-091680	26370	200	-18.2	30192	30619	31032	calib 8.10 IntCal20		33653
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 61-67			Bone, Panthera atrox	UCIAMS-091682	11895	35	-18.6	13604	13754	13981	calib 8.10 IntCal20		33654
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 61-67			Bone, Panthera atrox	UCIAMS-091683	12225	35	-19.2	14048	14126	14308	calib 8.10 IntCal20		33655
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit ?			Asphalt, tar	UCIAMS-108897	48130	240	-23.4	49740	51008	54777	calib 8.10 IntCal20		33656
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit ?			Carbon, Bitumen coal	UCIAMS-108898	50030	300	-23.1				N/A - too old to calibrate		33657
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 1			Bone, Panthera atrox	UCIAMS-109433	34400	680		37536	39442	40902	calib 8.10 IntCal20		33658
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 1			Bone, Panthera atrox	UCIAMS-109447	34810	830		37608	39865	41372	calib 8.10 IntCal20		33659
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 1			Bone, Panthera atrox	UCIAMS-111960	34950	590		38884	40095	41283	calib 8.10 IntCal20		33660
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 5B			Bone, Camelops hesternus	UCIAMS-111980	42600	1700		42833	45319	48075	calib 8.10 IntCal20		33661
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 5B			Bone, Camelops hesternus	UCIAMS-112815	42800	2900		42059	45876	51212	calib 8.10 IntCal20		33662
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 1			Bone, Panthera atrox	UCIAMS-125322	34860	710		38027	39970	41328	calib 8.10 IntCal20		33663
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 1			Bone, Panthera atrox	UCIAMS-125323	36260	840		39789	41173	42220	calib 8.10 IntCal20		33664
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	LACMHC* 6260, Canis familiaris			Bone, Canis familiaris	UCIAMS-133537	3125	25	-18.9	3250	3352	3441	calib 8.10 IntCal20		29948
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit Bliss 29			Insect Chitin, Unidentified bulk insect	UCIAMS-135090	2920	15		2969	3064	3155	calib 8.10 IntCal20		33668

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County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit Bliss 29			Insect Chitin, Unidentified bulk insect	UCIAMS-135091	4590	15	-23.1	5295	5314	5437	calib 8.10 IntCal20		33669
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit Bliss 29			Insect Chitin, Unidentified bulk insect	UCIAMS-135093	5725	15		6444	6516	6620	calib 8.10 IntCal20		33670
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Dicheirus (Carabidae: Coleoptera)	UCIAMS-135933	1110	20	-24	959	1007	1058	calib 8.10 IntCal20		33671
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91			Insect Chitin, Dicheirus (Carabidae: Coleoptera)	UCIAMS-135934	7265	25	-25.2	8015	8102	8170	calib 8.10 IntCal20		33672
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 1			Insect Chitin, Eleodes (Tenerionidae: Coleoptera)	UCIAMS-135935	35020	50		39861	40177	40500	calib 8.10 IntCal20		33673
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 1			Insect Chitin, Unidentified bulk insect, blanched	UCIAMS-135936	29050	290		32297	33538	34284	calib 8.10 IntCal20		33674
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 5B			Insect Chitin, Bulk unidentified insect	UCIAMS-135937	44300	1900	-26.1	43352	46894	50750	calib 8.10 IntCal20		33675
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 1			Insect Chitin, Unidentified bulk insect, pigmented	UCIAMS-135939	38880	960		41775	42688	44160	calib 8.10 IntCal20		33676
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 5B			Wood, Juniperus sp. Wood	UCIAMS-136675	42600	1200		43171	45242	47323	calib 8.10 IntCal20		33677
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 5B			Bone, Camelops hesternus	UCIAMS-136676	46700	2800		45205	49570	54980	calib 8.10 IntCal20		33678
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 5B			Bone, Camelops hesternus	UCIAMS-136686	44200	2000		43194	46830	50824	calib 8.10 IntCal20		33679
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit 1			Bone, Sylvilagus sp.	UCIAMS-136739	42900	1100	-21.1				N/A - too old to calibrate		29941
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 5B			Wood, Juniperus sp. Seed	UCIAMS-136740	44300	1300		44536	46733	49118	calib 8.10 IntCal20		33680
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Tenebrionidae (Coleoptera)	UCIAMS-136741	2295	29		2159	2324	2354	calib 8.10 IntCal20		33681
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Tenebrionidae (Coleoptera)	UCIAMS-136742	2170	15	-23.7	2113	2243	2301	calib 8.10 IntCal20		33682
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Tenebrionidae (Coleoptera)	UCIAMS-136743	46900	1700	-22.2	46074	49713	54980	calib 8.10 IntCal20		33683
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 5B			Wood, Unidentified wood	UCIAMS-136744	44200	1300		44492	46648	48997	calib 8.10 IntCal20		33684
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Tenebrionidae (Coleoptera) underlayer	UCIAMS-136747	2329	25	-24.5	2185	2346	2404	calib 8.10 IntCal20		33685
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Tenebrionidae (Coleoptera) underlayer	UCIAMS-136748	2180	15		2120	2252	2302	calib 8.10 IntCal20		33686
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91			Insect Chitin, Unidentified Coleoptera prothorax	UCIAMS-137678	26710	130		30742	30985	31166	calib 8.10 IntCal20		33687
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Unidentified Coleoptera body capsule	UCIAMS-137679	2450	25	-24.3	2362	2515	2700	calib 8.10 IntCal20		33688
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 1			Insect Chitin, Unidentified Coleoptera prothorax	UCIAMS-137680	30850	480		34429	35228	36140	calib 8.10 IntCal20		33689
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 1			Insect Chitin, Unidentified Coleoptera elytron	UCIAMS-137681	33450	280		37348	38288	39212	calib 8.10 IntCal20		33690
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 1			Insect Chitin, Unidentified Coleoptera head	UCIAMS-137682	35500	370		39840	40630	41253	calib 8.10 IntCal20		33691
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 5B			Insect Chitin, Coleoptera mandible	UCIAMS-137683	46400	1600		45617	49093	54804	calib 8.10 IntCal20		33692
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 1			Insect Chitin, Unidentified Coleoptera head	UCIAMS-137684	35560	360		39904	40689	41286	calib 8.10 IntCal20		33693
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91			Insect Chitin, Unidentified Coleoptera prothorax	UCIAMS-137685	26670	130		30459	30959	31148	calib 8.10 IntCal20		33694
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Unidentified Coleoptera body capsule	UCIAMS-137685	2420	25		2353	2440	2688	calib 8.10 IntCal20		33695
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 1			Insect Chitin, Unidentified Coleoptera elytron	UCIAMS-138836	37380	450	-25.7	41384	41980	42373	calib 8.10 IntCal20		33696
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 1			Insect Chitin, Unidentified Coleoptera elytron	UCIAMS-138837	37790	670	-25.3	41343	42136	42706	calib 8.10 IntCal20		33697
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 1			Insect Chitin, Unidentified Coleoptera elytron	UCIAMS-138838	35140	420		39483	40279	41058	calib 8.10 IntCal20		33698

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County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 1			Insect Chitin, Unidentified Coleoptera elytron	UCIAMS-138839	35620	360		39947	40744	41333	calib 8.10 IntCal20		33699
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Dicheirus dilatatus	UCIAMS-167034	205	20		1	181	299	calib 8.10 IntCal20		33700
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Dicheirus dilatatus	UCIAMS-167035	2165	25		2054	2163	2304	calib 8.10 IntCal20		33701
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Dicheirus dilatatus	UCIAMS-167036	320	20		309	388	454	calib 8.10 IntCal20		33702
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Dicheirus dilatatus	UCIAMS-167037	570	20		532	602	629	calib 8.10 IntCal20		33703
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Dicheirus dilatatus	UCIAMS-167038	290	20		294	394	430	calib 8.10 IntCal20		33704
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Dicheirus dilatatus	UCIAMS-167039	320	25		307	389	459	calib 8.10 IntCal20		33705
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Dicheirus dilatatus	UCIAMS-167040	305	20		303	394	443	calib 8.10 IntCal20		33706
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Dicheirus dilatatus	UCIAMS-167041	650	20		559	589	663	calib 8.10 IntCal20		33707
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Dicheirus dilatatus	UCIAMS-167042	565	20		530	599	628	calib 8.10 IntCal20		33708
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Dicheirus dilatatus	UCIAMS-167046	2755	20		2779	2831	2921	calib 8.10 IntCal20		33709
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91			Insect Chitin, Tanystoma maculicolle	UCIAMS-167050	230	20		1	281	309	calib 8.10 IntCal20		33710
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91			Insect Chitin, Tanystoma maculicolle	UCIAMS-167051	160	20		1	178	283	calib 8.10 IntCal20		33711
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91			Insect Chitin, Tanystoma maculicolle	UCIAMS-167052	195	20		1	183	291	calib 8.10 IntCal20		33712
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91			Insect Chitin, Dicheirus dilatatus	UCIAMS-167057	135	30		8	120	278	calib 8.10 IntCal20		33713
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91			Insect Chitin, Dicheirus dilatatus	UCIAMS-167060	180	20		1	185	289	calib 8.10 IntCal20		33714
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91			Insect Chitin, Dicheirus dilatatus	UCIAMS-167061	9480	45		10578	10732	11069	calib 8.10 IntCal20		33715
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91			Insect Chitin, Dicheirus dilatatus	UCIAMS-167062	9765	35		11154	11206	11248	calib 8.10 IntCal20		33716
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91			Insect Chitin, Dicheirus dilatatus	UCIAMS-167063	230	25		1	213	312	calib 8.10 IntCal20		33717
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91			Insect Chitin, Tanystoma maculicolle	UCIAMS-167064	165	30		1	173	289	calib 8.10 IntCal20		33718
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91			Insect Chitin, Dicheirus dilatatus	UCIAMS-167065	36580	960		39832	41353	42403	calib 8.10 IntCal20		33719
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91			Insect Chitin, Dicheirus dilatatus	UCIAMS-167066	39200	1700		40871	42986	45207	calib 8.10 IntCal20		33720
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91			Insect Chitin, Dicheirus dilatatus	UCIAMS-167067	40900	3800		38587	44423	51366	calib 8.10 IntCal20		33721
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91			Insect Chitin, Dicheirus dilatatus	UCIAMS-167068	24880	230		28683	29109	29794	calib 8.10 IntCal20		33722
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91			Insect Chitin, Dicheirus dilatatus	UCIAMS-167072	25950	280		29667	30250	30950	calib 8.10 IntCal20		33723
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91			Insect Chitin, Dicheirus dilatatus	UCIAMS-167073	25870	610		28975	30117	31136	calib 8.10 IntCal20		33724
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 5B, B-2			Insect Chitin, Dicheirus dilatatus	UCIAMS-167074	43800	1800		43249	46410	49820	calib 8.10 IntCal20		33725
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Dicheirus dilatatus	UCIAMS-169848	500	15		511	525	540	calib 8.10 IntCal20		33726
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Dicheirus dilatatus	UCIAMS-169849	710	15		652	667	675	calib 8.10 IntCal20		33727
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Dicheirus dilatatus	UCIAMS-169850	340	15		316	379	470	calib 8.10 IntCal20		33728
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Tanystoma maculicolle	UCIAMS-169851	485	15		505	520	531	calib 8.10 IntCal20		33729
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Dicheirus dilatatus	UCIAMS-169852	545	15		526	543	623	calib 8.10 IntCal20		33730
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Dicheirus dilatatus	UCIAMS-169853	535	15		523	539	553	calib 8.10 IntCal20		33731
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Pterostichus illustris	UCIAMS-169854	390	15		333	477	500	calib 8.10 IntCal20		33732

Appendix D-3: Geological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Pterostichus illustris	UCIAMS-169855	1095	15		956	992	1056	calib 8.10 IntCal20		33733
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Tanystoma maculicolle	UCIAMS-169856	360	15		320	431	490	calib 8.10 IntCal20		33734
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Tanystoma maculicolle	UCIAMS-169858	280	15		292	316	426	calib 8.10 IntCal20		33735
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Pterostichus illustris	UCIAMS-169859	46400	2300		45222	49274	54980	calib 8.10 IntCal20		33736
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Pterostichus illustris	UCIAMS-169860	290	25		291	389	442	calib 8.10 IntCal20		33737
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Calathus ruficollis	UCIAMS-169861	1210	15		1070	1125	1176	calib 8.10 IntCal20		33738
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Tanystoma maculicolle	UCIAMS-169862	265	15		157	305	422	calib 8.10 IntCal20		33739
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Tanystoma maculicolle	UCIAMS-169863	470	20		498	514	528	calib 8.10 IntCal20		33740
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Tanystoma maculicolle	UCIAMS-169864	455	20		494	509	525	calib 8.10 IntCal20		33741
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Tanystoma maculicolle	UCIAMS-169865	285	15		295	395	427	calib 8.10 IntCal20		33742
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Pterostichus illustris	UCIAMS-169866	230	20		1	281	309	calib 8.10 IntCal20		33743
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Pterostichus illustris	UCIAMS-169869	495	15		509	523	538	calib 8.10 IntCal20		33744
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Tanystoma maculicolle	UCIAMS-169870	800	25		675	707	732	calib 8.10 IntCal20		33745
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Tanystoma maculicolle	UCIAMS-169871	475	20		499	516	531	calib 8.10 IntCal20		33746
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Tanystoma maculicolle	UCIAMS-169872	295	15		302	400	429	calib 8.10 IntCal20		33747
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Tanystoma maculicolle	UCIAMS-169873	270	15		159	307	423	calib 8.10 IntCal20		33748
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Dicheirus dilatatus	UCIAMS-169874	430	15		480	500	512	calib 8.10 IntCal20		33749
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit B			Insect Chitin, Dicheirus dilatatus	UCIAMS-169875	565	15		537	598	626	calib 8.10 IntCal20		33750
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit Bliss 29			Insect Chitin, Pterostichus illustris	UCIAMS-169876	765	15		671	683	722	calib 8.10 IntCal20		33751
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit Bliss 29			Insect Chitin, Pterostichus illustris	UCIAMS-169877	12910	40		15277	15432	15594	calib 8.10 IntCal20		33752
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit Bliss 29			Insect Chitin, Pterostichus illustris	UCIAMS-169878	9120	60		10192	10290	10487	calib 8.10 IntCal20		33753
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit X			Insect Chitin, Pterostichus illustris	UCIAMS-169883	435	15		482	502	515	calib 8.10 IntCal20		33754
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, N-3			Insect Chitin, Dicheirus dilatatus	UCIAMS-169884	40300	1900		41371	43715	46258	calib 8.10 IntCal20		33755
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, N-3			Insect Chitin, Dicheirus dilatatus	UCIAMS-169885	38600	2800		37412	42419	46325	calib 8.10 IntCal20		33756
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, N-3			Insect Chitin, Dicheirus dilatatus	UCIAMS-169889	35700	2400		35418	39982	43219	calib 8.10 IntCal20		33757
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, N-3			Insect Chitin, Dicheirus dilatatus	UCIAMS-169890	28200	-					N/A - inexact age		33758
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, N-3			Insect Chitin, Dicheirus dilatatus	UCIAMS-170072	38600	1300		41091	42560	44327	calib 8.10 IntCal20		33759
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, N-3			Insect Chitin, Dicheirus dilatatus	UCIAMS-170073	38900	1600		40754	42772	44814	calib 8.10 IntCal20		33760
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, M-3			Insect Chitin, Dicheirus dilatatus	UCIAMS-170074	9510	160		10310	10826	11227	calib 8.10 IntCal20		33761
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, M-5			Insect Chitin, Tanystoma maculicolle	UCIAMS-170076	225	25		1	200	310	calib 8.10 IntCal20		33762
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, M-5			Insect Chitin, Tanystoma maculicolle	UCIAMS-170078	165	30		1	173	289	calib 8.10 IntCal20		33763
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, M-5			Insect Chitin, Tanystoma maculicolle	UCIAMS-170079	1165	30		974	1077	1176	calib 8.10 IntCal20		33764
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, M-5			Insect Chitin, Tanystoma maculicolle	UCIAMS-170083	305	25		301	391	454	calib 8.10 IntCal20		33765
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, M-5			Insect Chitin, Tanystoma maculicolle	UCIAMS-170084	220	20		1	182	306	calib 8.10 IntCal20		33766

Appendix D-3: Geological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, M-5			Insect Chitin, Tanystoma maculicolle	UCIAMS-170085	195	20		1	183	291	calib 8.10 IntCal20		33767
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, J-6			Insect Chitin, Calathus ruficollis	UCIAMS-170086	765	35		662	693	731	calib 8.10 IntCal20		33768
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, J-6			Insect Chitin, Tanystoma maculicolle	UCIAMS-170087	330	25		311	387	463	calib 8.10 IntCal20		33769
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, K-5			Insect Chitin, Dicheirus dilatatus	UCIAMS-170088	10730	160		12103	12691	13080	calib 8.10 IntCal20		33770
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, K-5			Insect Chitin, Tanystoma maculicolle	UCIAMS-170089	205	25		1	183	301	calib 8.10 IntCal20		33771
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, K-5			Insect Chitin, Dicheirus dilatatus	UCIAMS-170090	230	25		1	213	312	calib 8.10 IntCal20		33772
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, K-5			Insect Chitin, Dicheirus dilatatus	UCIAMS-170091	10310	60		11834	12120	12468	calib 8.10 IntCal20		33773
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, K-5			Insect Chitin, Dicheirus dilatatus	UCIAMS-170092	1275	30		1128	1223	1285	calib 8.10 IntCal20		33774
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, L-5			Insect Chitin, Dicheirus dilatatus	UCIAMS-170096	350	30		315	393	490	calib 8.10 IntCal20		33775
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, L-5			Insect Chitin, Tanystoma maculicolle	UCIAMS-170097	190	20		1	184	290	calib 8.10 IntCal20		33776
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, L-5			Insect Chitin, Tanystoma maculicolle	UCIAMS-170098	180	20		1	185	289	calib 8.10 IntCal20		33777
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, L-5			Insect Chitin, Tanystoma maculicolle	UCIAMS-170099	195	25		1	183	298	calib 8.10 IntCal20		33778
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, L-5			Insect Chitin, Tanystoma maculicolle	UCIAMS-170100	150	25		1	145	282	calib 8.10 IntCal20		33779
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, L-5			Insect Chitin, Tanystoma maculicolle	UCIAMS-170101	175	20		1	185	288	calib 8.10 IntCal20		33780
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, L-5			Insect Chitin, Tanystoma maculicolle	UCIAMS-170102	165	20		1	182	284	calib 8.10 IntCal20		33781
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, L-5			Insect Chitin, Tanystoma maculicolle	UCIAMS-170103	205	20		1	181	299	calib 8.10 IntCal20		33782
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, L-5			Insect Chitin, Tanystoma maculicolle	UCIAMS-170104	190	20		1	184	290	calib 8.10 IntCal20		33783
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, L-5			Insect Chitin, Tanystoma maculicolle	UCIAMS-170105	190	20		1	184	290	calib 8.10 IntCal20		33784
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, L-5			Insect Chitin, Tanystoma maculicolle	UCIAMS-170107	205	20		1	181	299	calib 8.10 IntCal20		33785
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, L-5			Insect Chitin, Tanystoma maculicolle	UCIAMS-170108	175	20		1	185	288	calib 8.10 IntCal20		33786
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, L-5			Insect Chitin, Dicheirus dilatatus	UCIAMS-170109	31100	-				N/A - inexact age		33787	
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, L-5			Insect Chitin, Dicheirus dilatatus	UCIAMS-170110	31900	-				N/A - inexact age		33788	
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, L-4			Insect Chitin, Dicheirus dilatatus	UCIAMS-170111	10020	210		10829	11604	12475	calib 8.10 IntCal20		33789
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, L-4			Insect Chitin, Dicheirus dilatatus	UCIAMS-170112	10010	210		10819	11589	12471	calib 8.10 IntCal20		33790
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, L-4			Insect Chitin, Dicheirus dilatatus	UCIAMS-170113	10120	140		11247	11716	12446	calib 8.10 IntCal20		33791
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, L-4			Insect Chitin, Dicheirus dilatatus	UCIAMS-170114	11840	90		13499	13693	14001	calib 8.10 IntCal20		33792
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, L-4			Insect Chitin, Pterostichus illustris	UCIAMS-170734	9425	40		10515	10653	10762	calib 8.10 IntCal20		33793
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, K-4			Insect Chitin, Tanystoma maculicolle	UCIAMS-170735	245	15		155	295	309	calib 8.10 IntCal20		33794
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, M-3			Insect Chitin, Dicheirus dilatatus	UCIAMS-170736	39100	3200		37429	42804	47646	calib 8.10 IntCal20		33795
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, M-3			Insect Chitin, Dicheirus dilatatus	UCIAMS-170737	39900	1900		41193	43470	45966	calib 8.10 IntCal20		33796
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, L-4			Insect Chitin, Dicheirus dilatatus	UCIAMS-170738	39100	2000		40247	42912	45541	calib 8.10 IntCal20		33797
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, L-10			Insect Chitin, Calathus ruficollis	UCIAMS-170739	28200	1500		29639	32521	35426	calib 8.10 IntCal20		33798
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, F-11			Insect Chitin, Dicheirus dilatatus	UCIAMS-170740	10015	45		11281	11507	11737	calib 8.10 IntCal20		33799
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, M-4			Insect Chitin, Dicheirus dilatatus	UCIAMS-170743	24500	-				N/A - inexact age		33800	

Appendix D-3: Geological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, M-11			Insect Chitin, Dicheirus dilatatus	UCIAMS-170744	33800	2200		34523	38396	42096	calib 8.10 IntCal20		33801
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, M-3			Insect Chitin, Dicheirus dilatatus	UCIAMS-170745	10070	310		10773	11703	12670	calib 8.10 IntCal20		33802
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, M-3			Insect Chitin, Dicheirus dilatatus	UCIAMS-170746	10510	760		10183	12138	14014	calib 8.10 IntCal20		33803
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, M-3			Insect Chitin, Dicheirus dilatatus	UCIAMS-170747	10060	70		11279	11583	11827	calib 8.10 IntCal20		33804
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, M-3			Insect Chitin, Dicheirus dilatatus	UCIAMS-170748	11080	330		12101	12994	13734	calib 8.10 IntCal20		33805
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, G-11			Insect Chitin, Calathus ruficollis	UCIAMS-170751	28100	1700		29120	32419	35698	calib 8.10 IntCal20		33806
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91, K-4			Insect Chitin, Pterostichus illustris	UCIAMS-170752	28390	160		31944	32528	33116	calib 8.10 IntCal20		33807
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 1, A-2			Insect Chitin, Dicheirus dilatatus	UCIAMS-170754	33500	2300		33954	38094	42172	calib 8.10 IntCal20		33808
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 5B, B-2			Insect Chitin, Tanystoma maculicollis	UCIAMS-170755	27500	-					N/A - inexact age		33809
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 5B, B-2			Insect Chitin, Dicheirus dilatatus	UCIAMS-170756	24900	-					N/A - inexact age		33810
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 5B, B-2			Insect Chitin, Calathus ruficollis	UCIAMS-170757	34500	-					N/A - inexact age		33811
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 5B, B-2			Insect Chitin, Calathus ruficollis	UCIAMS-170758	30600	-					N/A - inexact age		33812
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 5B, B-2			Insect Chitin, Dicheirus dilatatus	UCIAMS-170763	41100	-					N/A - inexact age		33813
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 5B, B-2			Insect Chitin, Dicheirus dilatatus	UCIAMS-170764	35000	-					N/A - inexact age		33814
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 5B, B-2			Insect Chitin, Dicheirus dilatatus	UCIAMS-170765	36400	-					N/A - inexact age		33815
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 5B, B-2			Insect Chitin, Dicheirus dilatatus	UCIAMS-170766	32100	-					N/A - inexact age		33816
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 4			Insect Chitin, Apsena laticornis	UCIAMS-172341	2390	25		2347	2406	2664	calib 8.10 IntCal20		33817
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 81			Insect Chitin, Apsena laticornis	UCIAMS-172342	3060	25		3182	3280	3358	calib 8.10 IntCal20		33818
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 9			Insect Chitin, Apsena laticornis	UCIAMS-172343	2705	25		2758	2804	2850	calib 8.10 IntCal20		33819
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 9			Insect Chitin, Apsena laticornis	UCIAMS-172344	1105	25		957	1005	1060	calib 8.10 IntCal20		33820
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Apsena laticornis	UCIAMS-172345	2380	25		2344	2398	2489	calib 8.10 IntCal20		33821
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Apsena laticornis	UCIAMS-172346	2305	20		2184	2339	2353	calib 8.10 IntCal20		33822
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit B			Insect Chitin, Apsena laticornis	UCIAMS-172347	8535	25		9487	9521	9541	calib 8.10 IntCal20		33823
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Apsena laticornis	UCIAMS-172348	495	25		504	524	543	calib 8.10 IntCal20		33824
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit B			Insect Chitin, Apsena laticornis	UCIAMS-172349	185	25		1	183	295	calib 8.10 IntCal20		33825
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit Bliss 29			Insect Chitin, Apsena laticornis	UCIAMS-172350	575	25		531	603	641	calib 8.10 IntCal20		33826
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit Bliss 29			Insect Chitin, Apsena laticornis	UCIAMS-172352	550	20		526	548	625	calib 8.10 IntCal20		33827
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit Bliss 29			Insect Chitin, Apsena laticornis	UCIAMS-172353	1180	25		1000	1103	1176	calib 8.10 IntCal20		33828
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit Bliss 29			Insect Chitin, Apsena laticornis	UCIAMS-172354	970	25		793	853	927	calib 8.10 IntCal20		33829
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit Bliss 29			Insect Chitin, Apsena laticornis	UCIAMS-172355	370	25		318	438	496	calib 8.10 IntCal20		33830
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit Bliss 29			Insect Chitin, Apsena laticornis	UCIAMS-172356	370	25		318	438	496	calib 8.10 IntCal20		33831
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit Bliss 29			Insect Chitin, Apsena laticornis	UCIAMS-172357	1740	25		1548	1629	1705	calib 8.10 IntCal20		33832
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit Bliss 29			Insect Chitin, Apsena laticornis	UCIAMS-172358	485	25		501	520	541	calib 8.10 IntCal20		33833
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 81			Insect Chitin, Apsena laticornis	UCIAMS-172359	10520	30		12476	12548	12662	calib 8.10 IntCal20		33834

Appendix D-3: Geological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 81			Insect Chitin, Eleodes acuticaudus	UCIAMS-172360	2655	25		2740	2762	2844	calib 8.10 IntCal20		33835
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 81			Insect Chitin, Eleodes acuticaudus	UCIAMS-172361	2635	25		2729	2753	2777	calib 8.10 IntCal20		33836
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 81			Insect Chitin, Eleodes acuticaudus	UCIAMS-172364	2555	25		2517	2717	2750	calib 8.10 IntCal20		33837
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 37			Insect Chitin, Eleodes acuticaudus	UCIAMS-172365	1255	25		1077	1219	1277	calib 8.10 IntCal20		33838
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit Bliss 29			Insect Chitin, Eleodes acuticaudus	UCIAMS-172366	3250	25		3393	3460	3557	calib 8.10 IntCal20		33839
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit Bliss 29			Insect Chitin, Eleodes acuticaudus	UCIAMS-172367	540	25		518	543	625	calib 8.10 IntCal20		33840
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit Bliss 29			Insect Chitin, Eleodes acuticaudus	UCIAMS-172368	1380	25		1276	1298	1345	calib 8.10 IntCal20		33841
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Eleodes acuticaudus	UCIAMS-172369	740	25		654	676	722	calib 8.10 IntCal20		33842
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Eleodes acuticaudus	UCIAMS-172370	2335	25		2315	2348	2415	calib 8.10 IntCal20		33843
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Eleodes acuticaudus	UCIAMS-172371	2590	25		2715	2738	2757	calib 8.10 IntCal20		33844
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit B			Insect Chitin, Eleodes acuticaudus	UCIAMS-173024	2275	15	-24	2181	2321	2343	calib 8.10 IntCal20		33845
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 2			Insect Chitin, Eleodes acuticaudus	UCIAMS-173025	1060	20	-23.7	925	949	1051	calib 8.10 IntCal20		33846
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 9			Insect Chitin, Eleodes acuticaudus	UCIAMS-173026	1175	15	-24.1	1003	1103	1176	calib 8.10 IntCal20		33847
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 28			Insect Chitin, Eleodes acuticaudus	UCIAMS-173027	7165	20	-24.3	7942	7983	8016	calib 8.10 IntCal20		33848
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 28			Insect Chitin, Eleodes acuticaudus	UCIAMS-173028	8830	20	-24.3	9729	9887	10123	calib 8.10 IntCal20		33849
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 36			Insect Chitin, Apsena laticornis	UCIAMS-173029	815	15	-24.1	686	709	731	calib 8.10 IntCal20		33850
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Nyctoporis carinata	UCIAMS-173030	705	15	-25.1	575	665	674	calib 8.10 IntCal20		33851
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Nyctoporis carinata	UCIAMS-173031	45600	1000	-23.2	45834	47928	50238	calib 8.10 IntCal20		33852
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Nyctoporis carinata	UCIAMS-173032	210	20	-23.7	1	180	302	calib 8.10 IntCal20		33853
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Nyctoporis carinata	UCIAMS-173033	2930	15	-24.8	3002	3091	3159	calib 8.10 IntCal20		33854
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Nyctoporis carinata	UCIAMS-173035	490	15	-24.4	507	521	533	calib 8.10 IntCal20		33855
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Nyctoporis carinata	UCIAMS-173036	2215	15	-25.7	2150	2227	2313	calib 8.10 IntCal20		33856
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Nyctoporis carinata	UCIAMS-173037	265	20	-27	155	306	425	calib 8.10 IntCal20		33857
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Nyctoporis carinata	UCIAMS-173038	285	20	-24.8	292	390	430	calib 8.10 IntCal20		33858
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Nyctoporis carinata	UCIAMS-173039	1670	15	-23.1	1530	1552	1685	calib 8.10 IntCal20		33859
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Nyctoporis carinata	UCIAMS-173040	425	20	-24.4	469	497	515	calib 8.10 IntCal20		33860
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Nyctoporis carinata	UCIAMS-173041	460	15	-25.2	498	511	523	calib 8.10 IntCal20		33861
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Nyctoporis carinata	UCIAMS-173042	2250	15	-22.5	2157	2224	2337	calib 8.10 IntCal20		33862
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit B			Insect Chitin, Nyctoporis carinata	UCIAMS-173043	730	15		661	673	682	calib 8.10 IntCal20		33863
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Nyctoporis carinata	UCIAMS-173044	2385	15		2348	2391	2484	calib 8.10 IntCal20		33864
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Nyctoporis carinata	UCIAMS-173047	2275	15		2181	2321	2343	calib 8.10 IntCal20		33865
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit A			Insect Chitin, Nyctoporis carinata	UCIAMS-173048	250	15	-24.9	156	297	310	calib 8.10 IntCal20		33866
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit B			Insect Chitin, Nyctoporis carinata	UCIAMS-173049	420	15		475	496	508	calib 8.10 IntCal20		33867
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit B			Insect Chitin, Nyctoporis carinata	UCIAMS-173050	250	20	-25.3	1	297	421	calib 8.10 IntCal20		33868

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County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit B			Insect Chitin, Nyctoporis carinata	UCIAMS-173051	480	15	-25.3	504	518	529	calib 8.10 IntCal20		33869
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	P23, Box 1			Bone, Panthera atrox	UCIAMS-190454	33310	590		36525	38073	39473	calib 8.10 IntCal20		33870
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-1, P23-5233			Bone, Sylvilagus	UCIAMS-191095	35750	610	-21.3	39698	40807	41840	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33193
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-1, P23-18270			Bone, Sylvilagus	UCIAMS-191096	35440	580	-22.5	39429	40535	41490	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33194
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-1, P23-22009			Bone, Sylvilagus	UCIAMS-191097	35150	580	-22.4	39232	40277	41288	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33195
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-1, P23-25476			Bone, Sylvilagus	UCIAMS-191098	36050	630	-21.4	39929	41068	42012	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33196
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-1, P23-28903			Bone, Sylvilagus	UCIAMS-191099	33830	480	-21.1	37243	38687	39852	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33197
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-1, P23-30238			Bone, Sylvilagus	UCIAMS-191100	35780	600	-21.5	39735	40836	41848	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33198
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-1, P23-31269			Bone, Sylvilagus	UCIAMS-191101	46200	2200	-20.5	44995	49038	54980	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33199
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-1, P23-31423			Bone, Sylvilagus	UCIAMS-191102	35420	580	-21.3	39415	40517	41468	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33200
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-14, P23-31033			Bone, Sylvilagus	UCIAMS-191103	47800	-				N/A - inexact age	Fox, Nathaniel S. 2022	33201	
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-14, P23-31036			Bone, Sylvilagus	UCIAMS-191104	49900	-				N/A - inexact age	Fox, Nathaniel S. 2022	33202	
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-14, P23-31056			Bone, Sylvilagus	UCIAMS-191105	49900	-				N/A - inexact age	Fox, Nathaniel S. 2022	33203	
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-14, P23-31031			Bone, Sylvilagus	UCIAMS-191242	50800	-				N/A - inexact age	Fox, Nathaniel S. 2022	33204	
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-1, P23-2046			Bone, Canis latrans	UCIAMS-198199	35770	550	-17	39792	40836	41794	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33205
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-1, P23-11485			Bone, Canis latrans	UCIAMS-198200	35050	510	-19.9	39288	40197	41112	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33206
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-1, P23-17139			Bone, Otospermophilus	UCIAMS-198201	32500	370	-20.4	36079	36868	38078	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33207
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-1, P23-20172			Bone, Otospermophilus	UCIAMS-198202	35900	560	-21.4	39899	40952	41885	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33208
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-1, P23-26592			Bone, Otospermophilus	UCIAMS-198203	33100	620	-21	36316	37829	39333	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33209
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-1, P23-30796			Bone, Otospermophilus	UCIAMS-198204	36160	910	-21.1	39615	41074	42221	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33210
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-1, P23-33227			Bone, Otospermophilus	UCIAMS-198205	36580	610	-20.7	40567	41476	42217	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33211
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-1, P23-33229			Bone, Otospermophilus	UCIAMS-198207	31830	340	-20.9	35443	36166	36873	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33212
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-14, P23-33233			Bone, Neotoma	UCIAMS-198208	25620	160	-21.1	29322	29929	30163	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33213
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-1, P23-28902			Bone, Sylvilagus	UCIAMS-198294	39700	810	-20.9	42344	43155	44297	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33214
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-14, P23-31113			Bone, Otospermophilus	UCIAMS-198295	33070	350	-20.8	36748	37713	39059	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33215
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-14, P23-31118			Bone, Otospermophilus	UCIAMS-198296	47400	2000	-19.3	46641	50298	54980	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33216
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-14, P23-33232			Bone, Thomomys	UCIAMS-198297	28600	210	-21.6	32056	32827	33602	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33217
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-14, P23-33235			Bone, Otospermophilus	UCIAMS-198298	26310	150	-20.9	30195	30579	30946	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33218
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-1, P23-33228			Bone, Otospermophilus	UCIAMS-198302	30870	270	-20.2	34620	35216	35874	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33219
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, Pit 10, HC-11534			Bone, Sylvilagus	UCIAMS-216760	5925	20	-20.8	6672	6745	6793	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33220
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, Pit 10, HC-11587			Bone, Otospermophilus	UCIAMS-216761	11105	25	-21.1	12927	13044	13099	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33221
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, Bliss 29, HC-130857			Bone, Otospermophilus	UCIAMS-216762	43700	1600	-21.2	43372	46259	49075	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33222
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, Pit 16, HC-142763			Bone, Sylvilagus	UCIAMS-216763	36880	660	-21.4	40739	41636	42340	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33223
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, Pit 16, HC-142764			Bone, Sylvilagus	UCIAMS-216764	36350	620	-21	40275	41315	42159	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33224

Appendix D-3: Geological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, Pit 16, HC-142766			Bone, Sylvilagus	UCIAMS-216765	28600	240	-21.3	32010	32826	33658	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33225
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, No data, HC-142767			Bone, Sylvilagus	UCIAMS-216766	13990	40	-22	16861	17023	17303	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33226
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, No data, HC-142772			Bone, Sylvilagus	UCIAMS-216767	14390	40	-21.9	17359	17530	17796	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33227
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, Pit A, HC-142773			Bone, Sylvilagus	UCIAMS-216768	41000	1100	-21.8	42595	43964	45473	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33228
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, Pit A, HC-142778			Bone, Sylvilagus	UCIAMS-216769	42900	1400	-21.3	43215	45521	47926	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33229
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, Pit A, HC-142779			Bone, Sylvilagus	UCIAMS-216770	35740	570	-22.1	39739	40805	41795	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33230
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, Pit 16, V-2173			Bone, Sylvilagus	UCIAMS-216771	30320	290	-22.5	34287	34752	35306	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33231
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, No data, V-4516			Bone, Otospermophilus	UCIAMS-216772	2375	15	-20.7	2345	2363	2462	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33232
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, No data, V-4520			Bone, Otospermophilus	UCIAMS-216773	31340	330	-20.4	34920	35715	36332	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33233
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, No data, V-4524			Bone, Otospermophilus	UCIAMS-216779	31000	320	-20.7	34685	35374	36066	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33234
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, Pit 16, V-4531			Bone, Otospermophilus	UCIAMS-216780	30900	320	-21.4	34613	35257	35992	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33235
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-7B, P23-35670			Bone, Otospermophilus	UCIAMS-216781	30970	320	-21.5	34663	35338	36045	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33236
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-7B, P23-35691			Bone, Mustela frenata	UCIAMS-216782	38750	840	-20.2	41812	42594	43911	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33237
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-7B, P23-35774			Bone, Leporidae	UCIAMS-216783	42600	1400	-21.6	43042	45269	47661	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33238
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-7B, P23-36332			Bone, Sylvilagus	UCIAMS-216784	41500	1200	-21.7	42712	44338	46029	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33239
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-7B, P23-36336			Bone, Sylvilagus	UCIAMS-216785	50200	3500					N/A - too old to calibrate	Fox, Nathaniel S. 2022	33240
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, Pit 16, V-2174			Bone, Sylvilagus	UCIAMS-217078	28500	240	-22.3	31886	32662	33487	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33241
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-7B, P23-36331			Bone, Sylvilagus	UCIAMS-217079	46200	2400	-21.4	44890	49066	54980	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33242
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, Pit 10, HC-11584			Bone, Otospermophilus	UCIAMS-223493	4505	20	-18.5	5050	5156	5295	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33243
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, No data, HC-143517			Bone, Sylvilagus	UCIAMS-223494	2650	25	-18.8	2738	2759	2843	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33244
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-13, P23-36572			Bone, Otospermophilus	UCIAMS-223496	40640	800	-20.9	42683	43714	44753	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33245
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-13, P23-36693			Bone, Sylvilagus	UCIAMS-223497	39240	670	-22	42220	42802	43919	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33246
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-13, P23-36859			Bone, Otospermophilus	UCIAMS-223498	34800	390	-21.2	39248	39975	40754	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33247
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-13, P23-36896			Bone, Sylvilagus	UCIAMS-223499	33590	340	-21.5	37364	38448	39385	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33248
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-13, P23-36907			Bone, Otospermophilus	UCIAMS-223500	35230	410	-21	39570	40361	41112	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33249
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-13, P23-36910			Bone, Otospermophilus	UCIAMS-223501	35270	410	-21.2	39601	40399	41140	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33250
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-13, P23-36989			Bone, Sylvilagus	UCIAMS-223502	44000	1200	-21.4	44531	46459	48599	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33251
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-13, P23-37612			Bone, Sylvilagus	UCIAMS-223503	46200	1600	-21.4	45380	48845	54658	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33252
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-13, P23-37651			Bone, Otospermophilus	UCIAMS-223504	47400	1800	-20.1	46883	50301	54980	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33253
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-13, P23-39811			Bone, Sylvilagus	UCIAMS-223505	33260	320	-21.9	37046	38026	39114	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33254
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-13, P23-39812			Bone, Sylvilagus	UCIAMS-223506	36260	470	-21.2	40517	41282	42004	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33255
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-13, P23-39818			Bone, Sylvilagus	UCIAMS-223507	31230	270	-22.2	34937	35629	36206	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33256
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-13, P23-39822			Bone, Sylvilagus	UCIAMS-223508	31980	280	-21.1	35699	36329	36949	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33257
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-13, P23-39825			Bone, Otospermophilus	UCIAMS-223509	32660	300	-21.2	36253	37029	38079	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33258

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County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-14, P23-40634			Bone, Sylvilagus	UCIAMS-223513	25830	140	-21.3	29911	30097	30340	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33259
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-14, P23-40635			Bone, Sylvilagus	UCIAMS-223514	51700	-					N/A - inexact age	Fox, Nathaniel S. 2022	33260
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-14, P23-40636			Bone, Sylvilagus	UCIAMS-223515	27200	160		31063	31233	31575	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33261
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-14, P23-40637			Bone, Sylvilagus	UCIAMS-223516	26780	160	-20.9	30512	31012	31207	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33262
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-14, P23-40638			Bone, Sylvilagus	UCIAMS-223517	36870	500	-21.4	41026	41672	42237	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33263
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-14, P23-40639			Bone, Sylvilagus	UCIAMS-223518	49800	2500	-21.7	47945	52024	54980	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33264
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-14, P23-40640			Bone, Sylvilagus	UCIAMS-223519	49400	2400		47798	51837	54980	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33265
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-14, P23-40641			Bone, Neotoma	UCIAMS-223520	28750	190		32222	33138	33749	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33266
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-14, P23-40644			Bone, Sylvilagus	UCIAMS-223522	38490	610		41963	42453	42965	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33267
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-14, P23-40647			Bone, Sylvilagus	UCIAMS-223523	49900	-					N/A - inexact age	Fox, Nathaniel S. 2022	33268
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-14, V-2641			Bone, Sylvilagus	UCIAMS-223524	28090	180	-20.9	31646	32063	32893	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33269
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, Pit 4, V-2644			Bone, Sylvilagus	UCIAMS-223525	31460	260	-21.1	35313	35814	36279	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33270
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, No data, V-2737			Bone, Sylvilagus	UCIAMS-223526	30540	240	-21.2	34476	34927	35375	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33271
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, No data, V-2751			Bone, Sylvilagus	UCIAMS-223527	35870	450	-21.3	40036	40946	41760	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33272
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, Pit 10, V-4509			Bone, Otospermophilus	UCIAMS-223528	6155	25	-18.6	6962	7060	7158	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33273
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, No data, V-4519			Bone, Otospermophilus	UCIAMS-223529	28370	180	-19.3	31893	32511	33128	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33274
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-13, P23-35541			Bone, Sylvilagus	UCIAMS-223585	39220	460	-21.4	42310	42734	43232	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33275
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Deposit, P23-14, P23-40642			Bone, Otospermophilus	UCIAMS-223587	26710	110	-20.3	30812	30993	31137	calib 8.10 IntCal20	Fox, Nathaniel S. 2022	33276
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 4			Bone, Bison antiquus axis	UCLA-0129Z	27000	1600		28147	31272	34427	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	677
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea samples of unknown provenance-La Brea			Asphalt	UCLA-0345	34001	-					N/A - inexact age	O'Keefe, F. R. 2009, Marcus 1984	587
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea samples of unknown provenance-La Brea			Asphalt	UCLA-0346	34002	-					N/A - inexact age	O'Keefe, F. R. 2009, Marcus 1984	586
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea Pits			Wood,	UCLA-0737a	23300	510		26448	27536	28596	calib 8.10 IntCal20	Berger, R. 1966, Johnson, D. E. 1977	7858
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea Pits			Wood,	UCLA-0737b	32350	1400		34822	36970	39320	calib 8.10 IntCal20	Berger, R. 1966, Johnson, D. E. 1977	7852
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea Pits			Wood,	UCLA-0773a	38000	1600		40898	42195	43219	calib 8.10 IntCal20	Berger, R. 1966, Johnson, D. E. 1977	7847
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea Pits			Wood,	UCLA-0773b	40000	-					N/A - inexact age	Berger, R. 1966, Johnson, D. E. 1977	7846
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea Pits			Wood,	UCLA-0773C	37000	2660		40080	41594	42623	calib 8.10 IntCal20	Berger, R. 1966, Johnson, D. E. 1977, Woodward, G. D. 1976	7848
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea Pits			Wood,	UCLA-0773d	13300	160		15534	15992	16479	calib 8.10 IntCal20	Berger, R. 1966, Johnson, D. E. 1977	7861
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea Pits			Wood,	UCLA-0773e	40000	-					N/A - inexact age	Berger, R. 1966, Johnson, D. E. 1977	7845
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea Pits			Wood,	UCLA-0773f	40000	-					N/A - inexact age	Berger, R. 1966, Johnson, D. E. 1977	7844
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea Pits			Wood,	UCLA-0773g	40000	-					N/A - inexact age	Berger, R. 1966, Johnson, D. E. 1977	7843
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea Tar Pits			Bone, Smilodon californicus	UCLA-1292A	21400	560		24327	25642	26922	calib 8.10 IntCal20	Berger, R. 1968, Ericson, J. E. 1972, Woodward, G. D. 1976	7702
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 3; Grid C-3	457.2	457.2	Bone, Mammut americanum tibia	UCLA-1292AA	14430	200		17094	17620	18153	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	745

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County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea Tar Pits			Bone, Smilodon californicus	UCLA-1292B	12650	160		14289	15002	15543	calib 8.10 IntCal20	Berger, R. 1968, Ericson, J. E. 1972, Woodward, G. D. 1976	7715
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea Tar Pits			Bone, Smilodon californicus	UCLA-1292C	14500	190		17144	17700	18207	calib 8.10 IntCal20	Berger, R. 1968, Ericson, J. E. 1972, Woodward, G. D. 1976	7711
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 10; Grid F-11	122	121	Bone, Equus sp. Femur	UCLA-1292CC	15700	530		17884	19042	20320	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	731
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea Tar Pits			Bone, Smilodon californicus	UCLA-1292D	28000	1400		30373	32320	34326	calib 8.10 IntCal20	Berger, R. 1968, Ericson, J. E. 1972, Woodward, G. D. 1976	7699
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea Tar Pits			Bone, Smilodon californicus	UCLA-1292E	14400	2100		14494	17363	19826	calib 8.10 IntCal20	Berger, R. 1968, Ericson, J. E. 1972, Woodward, G. D. 1976	7712
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea Tar Pits	335.28	335.28	Bone, Smilodon californicus	UCLA-1292F	14950	430		17090	18185	19060	calib 8.10 IntCal20	Berger, R. 1968, Ericson, J. E. 1972, Woodward, G. D. 1976	7709
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea Tar Pits			Bone, Smilodon californicus	UCLA-1292G	26700	900		29141	30845	32941	calib 8.10 IntCal20	Berger, R. 1968, Ericson, J. E. 1972, Woodward, G. D. 1976	7700
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea Tar Pits			Bone, Smilodon californicus	UCLA-1292H	23700	600		26518	27960	29177	calib 8.10 IntCal20	Berger, R. 1968, Ericson, J. E. 1972, Woodward, G. D. 1976	7701
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea Tar Pits	441.96	441.96	Bone, Smilodon californicus	UCLA-1292I	15300	200		18226	18568	18923	calib 8.10 IntCal20	Berger, R. 1968, Ericson, J. E. 1972, Woodward, G. D. 1976	7707
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea Tar Pits			Bone, Smilodon californicus	UCLA-1292J	20500	900		22601	24641	26429	calib 8.10 IntCal20	Berger, R. 1968, Ericson, J. E. 1972, Woodward, G. D. 1976	7703
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea Tar Pits			Bone, Smilodon californicus	UCLA-1292K	19300	395		22428	23284	24090	calib 8.10 IntCal20	Berger, R. 1968, Ericson, J. E. 1972, Woodward, G. D. 1976	7704
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea Tar Pits			Bone, Smilodon californicus, cut	UCLA-1292L	15200	800		16428	18422	20306	calib 8.10 IntCal20	Berger, R. 1968, Ericson, J. E. 1972, Woodward, G. D. 1976	7708
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 4; Grid F-4+5	609	670	Bone, Smilodon fatalis femur	UCLA-1292M	36000	-				N/A - inexact age	O'Keefe, F. R. 2009, Marcus 1984	613	
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 4; Grid B-5	563.88	563.88	Bone, Smilodon fatalis femur	UCLA-1292N	12760	150		14506	15214	15706	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	765
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 4; Grid B-5	716	716	Bone, Smilodon fatalis femur	UCLA-1292O	29600	1100		31573	33869	36063	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	635
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 4; Grid D-3+4	320.04	320.04	Bone, Bison latifrons Scapula	UCLA-1292Q	13500	170		15776	16283	16839	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	760
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 4	137.16	259.08	Bone, Smilodon fatalis	UCLA-1292R	19800	300		23063	23819	24536	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	716
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 4; Grid F-4+5	548	548	Bone, Smilodon fatalis femur	UCLA-1292S	35500	2200		35725	39884	42885	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	617
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 3; Grid E-5	426.72	426.72	Bone, Mammut americanum tibia	UCLA-1292T	14350	175		17039	17515	18032	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	748
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 77; Grid G-11	396	457	Bone, Smilodon fatalis	UCLA-1292U	33100	600		36346	37828	39304	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	622
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 77; Grid F-10	563	640	Bone, Smilodon fatalis	UCLA-1292V	31300	1350		33007	35806	39248	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	625
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 77	274.32	335.28	Bone, Smilodon fatalis	UCLA-1292W	28200	980		30473	32508	34497	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	650
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 61-67; Grid D-16	304	305	Bone, Smilodon fatalis	UCLA-1292X	12000	125		13524	13888	14153	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	771
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 61-67; Grid H-10	457	609	Bone, Smilodon fatalis	UCLA-1292Y	12200	200		13611	14242	14983	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	769
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91			Wood, Juniperus sp.	UCLA-1660A	40690	550		42929	43724	44518	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Ward 2005	602
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid L-5	182	213	Bone, sacrum Smilodon fatalis	UCLA-1718	30800	600		34210	35200	36287	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	629
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea Pits			Bone	UCLA-1738a	25100	850		27771	29329	30925	calib 8.10 IntCal20	Johnson, D. E. 1977	7856
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91; Grid N-11	268	274	Bone, humerus Smilodon fatalis	UCLA-1738B	33000	1750		34379	37744	41179	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	623
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea Pits			Bone	UCLA-1738d	32600	2800		35152	37275	39647	calib 8.10 IntCal20	Johnson, D. E. 1977	7851
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea Pits	246.89	259.08	Bone	UCLA-1738E	29100	1200		31270	33344	35249	calib 8.10 IntCal20	Johnson, D. E. 1977	7853

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County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea Pits			Bone	UCLA-1738f	25100	1100		27496	29316	31099	calib 8.10 IntCal20	Johnson, D. E. 1977	7857
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 2051	207.26	207.26	Bone, humerus Smilodon fatalis	UCMP-	13950	1570		12849	16700	20457	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	757
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 91	182.88	182.88	Bone, Equus sp.	UCMP-	6160	530		5770	6984	8022	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	783
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 2051?			Bone, Canis dirus	UCMP-024314	19640	100		23335	23547	23845	calib 8.10 IntCal20	O'Keefe, F. R. 2009, O'Keefe	717
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 2051?			Bone, Canis dirus	UCMP-024319	23600	330		27264	27790	28544	calib 8.10 IntCal20	O'Keefe, F. R. 2009, O'Keefe	699
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 2051?			Bone, Canis dirus	UCMP-024332	23080	150		27174	27375	27688	calib 8.10 IntCal20	O'Keefe, F. R. 2009, O'Keefe	702
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 2051?			Bone, Canis dirus	UCMP-024334	19380	100		23046	23344	23743	calib 8.10 IntCal20	O'Keefe, F. R. 2009, O'Keefe	722
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 2051?			Bone, Canis dirus	UCMP-024343	25240	400		28698	29511	30233	calib 8.10 IntCal20	O'Keefe, F. R. 2009, O'Keefe	687
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 2051?			Bone, Canis dirus	UCMP-024345	24000	340		27581	28209	28967	calib 8.10 IntCal20	O'Keefe, F. R. 2009, O'Keefe	695
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 2051?			Bone, Canis dirus	UCMP-024346	23110	160		27188	27407	27705	calib 8.10 IntCal20	O'Keefe, F. R. 2009, O'Keefe	701
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 2051?			Bone, Canis dirus	UCMP-024346	19580	190		23043	23517	23907	calib 8.10 IntCal20	O'Keefe, F. R. 2009, O'Keefe	718
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 2051?			Bone, Gymnogyps californianus	UCMP-148875	24230	550		27354	28438	29587	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Fox-Dobbs 2006	693
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 2051?			Bone, Gymnogyps californianus	UCMP-148876	30900	1300		32173	35340	38472	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Fox-Dobbs 2006	627
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 2051?			Bone, Gymnogyps californianus	UCMP-148877	19030	280		22405	22968	23738	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Fox-Dobbs 2006	724
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 2051?			Bone, Gymnogyps californianus	UCMP-148878	22710	450		26051	26947	27721	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Fox-Dobbs 2006	705
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 2051?			Bone, Gymnogyps californianus	UCMP-148880	21260	370		24657	25520	26309	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Fox-Dobbs 2006	710
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 2051?			Bone, Gymnogyps californianus	UCMP-148881	30700	1300		31896	35113	38094	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Fox-Dobbs 2006	630
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 2051?			Bone, Gymnogyps californianus	UCMP-148884	31000	1300		32284	35456	38807	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Fox-Dobbs 2006	626
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 2051?			Bone, Gymnogyps californianus	UCMP-148885	24900	600		27814	29140	30229	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Fox-Dobbs 2006	689
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 16; Grid Caved			Bone, Canis latrans ulna	X-9982	29860	190		34029	34360	34655	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Harris , O'Keefe, F. R. 2009, Harris	633
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 3			Wood, Cupressus sp.	Y-0354A	14500	210		17132	17697	18209	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Deevey 1959	744
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 3			Wood, Cupressus sp.	Y-0354B	15390	230		18233	18671	19111	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Deevey 1959	733
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 3			Wood, Cupressus sp.	Y-0355A	14110	420		16013	17145	18226	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Deevey 1959	754
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 3			Wood, Cupressus sp.	Y-0355B	13890	280		16010	16832	17717	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Deevey 1959	756
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	Pit 4; Grid D-2			Bone, Equus sp. Phalanx	Z-4482	28600	190		32076	32830	33552	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Harris	641
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea samples of unknown provenance-La Brea			Wood,		16250	2000		17400	19710	22116	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Douglas 1952	729
LAN		374798	3770043	53	Tar seep	La Brea Tar Pit	La Brea Pits			Bone		32600	2800		35152	37275	39647	calib 8.10 IntCal20	Woodward, G. D. 1976	7850
LAN		374798	3770043	53	Floodplain	Lankershim Blvd.	Non-La Brea - Lankershim Blvd			Wood, Juniperus sp.	L-0027	51800	2700					NIA - too old to calibrate	O'Keefe, F. R. 2009, Ward 2005	590
LAN	CA-LAN-0172	373240	3765350	30	Fan	Leimert Park, L.A. Man	Los Angeles Man, age of the HCl-insoluble organic fraction isolated from the bones			Bone, human	none	3560	220		3397	3870	4412	calib 8.10 IntCal20	UCR 1986	7678
LAN	CA-LAN-0172	373240	3765350	30	Fan	Leimert Park, L.A. Man	Los Angeles Man			Bone, collagen	UCLA-1430	23600	2360		25975	27868	29849	calib 8.10 IntCal20	Davis, E.L. 1976	7676
LAN		393227	3785376	413	Fan, fault	Loma Alta Park	Sierra Madre Fault paleosiesmic trench, Stratum 2, Ab horizon			Charcoal, detrital	LAP-10	16330	110	-22	19463	19721	20014	calib 8.10 IntCal20	Rubin, C.M. 1998	33140
LAN		393227	3785376	413	Fan, fault	Loma Alta Park	Sierra Madre Fault paleosiesmic trench, Stratum 3			Charcoal, detrital	LAP-12	29550	710	-25.1	32053	33896	35309	calib 8.10 IntCal20	Rubin, C.M. 1998	33141
LAN		393227	3785376	413	Fan, fault	Loma Alta Park	Sierra Madre Fault paleosiesmic trench, Stratum 2, Ab horizon			Charcoal, detrital	LAP-13	24360	300	-23.4	27870	28538	29130	calib 8.10 IntCal20	Rubin, C.M. 1998	33142
LAN		393227	3785376	413	Fan, fault	Loma Alta Park	Sierra Madre Fault paleosiesmic trench, Stratum 4a			Charcoal, detrital	LAP-14	14360	320	-23.3	16620	17512	18251	calib 8.10 IntCal20	Rubin, C.M. 1998	33143
LAN		393227	3785376	413	Fan, fault	Loma Alta Park	Sierra Madre Fault paleosiesmic trench, Stratum 4a			Charcoal, detrital	LAP-4	15600	140	-23.3	18390	18891	19215	calib 8.10 IntCal20	Rubin, C.M. 1998	33144
LAN		393227	3785376	413	Fan, fault	Loma Alta Park	Sierra Madre Fault paleosiesmic trench, Stratum 3			Charcoal, detrital	LAP-5	28760	370	-23.8	31966	33081	34072	calib 8.10 IntCal20	Rubin, C.M. 1998	33145
LAN		393227	3785376	413	Fan, fault	Loma Alta Park	Sierra Madre Fault paleosiesmic trench, Stratum 3			Charcoal, detrital	LAP-9	29900	390	-25	33623	34381	35237	calib 8.10 IntCal20	Rubin, C.M. 1998	33146
LAN		393227	3785376	413	Fan, fault	Loma Alta Park	Sierra Madre Fault paleosiesmic trench, Stratum 4a			Charcoal, angular detrital	LAP-BS-1t	12160	75	-23.3	13805	14064	14301	calib 8.10 IntCal20	Rubin, C.M. 1998	33147

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County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN		393227	3785376	413	Fan, fault	Loma Alta Park	Sierra Madre Fault paleosismic trench, Stratum 4a			Charcoal, round detrital	LAP-BS-2t	15235	95	-23.7	18275	18471	18734	calib 8.10 IntCal20	Rubin, C.M. 1998	33148
LAN		393227	3785376	413	Fan, fault	Loma Alta Park	Sierra Madre Fault paleosismic trench, Stratum 4b			Organic sediment	LAP-MRT-1	1185	95	-25.7	929	1105	1287	calib 8.10 IntCal20	Rubin, C.M. 1998	33149
LAN		393227	3785376	413	Fan, fault	Loma Alta Park	Sierra Madre Fault paleosismic trench, Stratum 4b			Organic sediment	LAP-MRT-2	3335	35	-25.6	3466	3550	3683	calib 8.10 IntCal20	Rubin, C.M. 1998	33150
LAN		393227	3785376	413	Fan, fault	Loma Alta Park	Sierra Madre Fault paleosismic trench, Stratum 4b			Organic sediment	LAP-MRT-3	9495	75	-25.3	10570	10793	11105	calib 8.10 IntCal20	Rubin, C.M. 1998	33151
LAN		393227	3785376	413	Fan, fault	Loma Alta Park	Sierra Madre Fault paleosismic trench, Stratum 2, Ab horizon			Organic sediment	LAP-MRT-4	16175	80	-23.4	19265	19517	19821	calib 8.10 IntCal20	Rubin, C.M. 1998	33152
LAN		393227	3785376	413	Fan, fault	Loma Alta Park	Sierra Madre Fault paleosismic trench, Stratum 3			Organic sediment	LAP-MRT-5	34300	800		37149	39250	40944	calib 8.10 IntCal20	Rubin, C.M. 1998	33153
LAN		371150	3795198	422	Hill, ridge	Lopez Canyon	Lopez Canyon (+/-50 yr lab error used to calibrate)			Wood,	W-2624	200	50		1	182	419	calib 8.10 IntCal20	Kelley, L. 1978	7841
LAN		401788	3738546	6	Floodplain	Los Alamitos Base	Trench 27, base of B7 horizon above 2Ab horizon	190	190	Charcoal, from sediment	Beta-467953	1860	30	-25.5	1707	1771	1864	calib 8.10 IntCal20	Mirro, Michael 2017	33094
LAN		401502	3739337	6	Floodplain	Los Alamitos Base	Trench 18, base of 2C horizon above 3Ab	170	170	Charcoal, from sediment	Beta-467973	1710	30	-23.5	1535	1597	1698	calib 8.10 IntCal20	Mirro, Michael 2017	33095
LAN	CA-LAN-1575/H	385895	3768949	86		Metro Water	Stratum Iii, feature 3, flexed interment, adult (date rejected)			Organic, asphaltum?	Beta-105591	25210	160	-24.8	29164	29510	29911	calib 8.10 IntCal20	Goldberg, Susan K. 1999	32228
LAN		438797	3718289	163	Fan	Miranda, Amelia Mayberry Park	From Coyote Creek, La Mirada, California in sandy silt 12 ft below surface with extinct Pleistocene mammals foundabove and below this wood-bearing stratum.			Wood,	UCLA-1325	8550	100		9297	9536	9888	calib 8.10 IntCal20	Berger, R. 1969	7902
LAN		372568	3781661	193	Terrace, Coastal	N. Hollywood Park	North Hollywood Park			Wood,		28450	2600		30853	32726	34701	calib 8.10 IntCal20	Woodward, G. D. 1976	7854
LAN		358998	3791311	289	Fan	Northridge, Aliso Wash	Test Pit TP-4, Qal2			Charcoal		250	50		1	295	463	calib 8.10 IntCal20	Baldwin, John N. 2000	33179
LAN		358998	3791311	289	Fan	Northridge, Aliso Wash	Test Pit TP-4, Qal2			Charcoal		615	75		516	601	675	calib 8.10 IntCal20	Baldwin, John N. 2000	33180
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 7, Gaspur, downthrown	-47	-47	Charcoal	AA-007162	11410	110		13110	13289	13476	calib 8.10 IntCal20		26106
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 7, Gaspur, downthrown	-34.1	-34.1	Wood	AA-007163	9660	105		10705	10986	11243	calib 8.10 IntCal20		26115
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 7, Marine, downthrown, reworked shell	-29.7	-29.7	Charcoal, piece	AA-007164	8975	80		9775	10075	10253	calib 8.10 IntCal20		26071
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 24, Paleo-channel, upthrown, near base of channel	-24.8	-24.8	Shell-m, marine	AA-007165	7145	85		7145	7380	7609	calib 8.10 Marine20; 70±65		26102
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 23, Paleo-channel, upthrown	-14.9	-14.9	Shell-m, marine	AA-007167	7525	70		7517	7735	7952	calib 8.10 Marine20; 70±65		26080
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 126A, Paleo-channel, upthrown	-25.5	-25.5	Shell-m, fragment	AA-007168	7435	70		7428	7649	7867	calib 8.10 Marine20; 70±65		26095
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 93, Paleo-channel, upthrown	-16.3	-16.3	Shell-m, marine	AA-007169	7435	70		7428	7649	7867	calib 8.10 Marine20; 70±65		26079
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 121, San Pedro, downthrown, base of infill channel	-13.6	-13.6	Shell-m, marine	AA-007170	7706	70		7682	7912	8154	calib 8.10 Marine20; 70±65		26074
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 1, Gaspur, upthrown	-29.3	-29.3	Charcoal	AA-007329	9675	70		10773	11041	11230	calib 8.10 IntCal20		26108
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 1, Paleo-channel, upthrown	-13.7	-13.7	Charcoal, piece	AA-007330	8880	70		9712	9991	10195	calib 8.10 IntCal20		26255
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 3, Gaspur, downthrown	-45	-45	Wood, piece	AA-007331	12005	80		13614	13902	14070	calib 8.10 IntCal20		26117
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 3, Gaspur, downthrown	-41.1	-41.1	Wood, piece	AA-007332	10035	75		11273	11546	11814	calib 8.10 IntCal20		26118
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 3, Gaspur, downthrown	-36.6	-36.6	Charcoal	AA-007333	9990	100		11235	11500	11818	calib 8.10 IntCal20		26107
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 3, Gaspur, downthrown	-31.2	-31.2	Charcoal, piece	AA-007334	9660	95		10731	10991	11235	calib 8.10 IntCal20		26109
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 7, Gaspur, downthrown	-45.5	-45.5	Wood, piece	AA-007335	11250	110		12901	13157	13348	calib 8.10 IntCal20		26119
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 7, Gaspur, downthrown	-33.9	-33.9	Charcoal, piece	AA-007336	9335	100		10245	10537	11060	calib 8.10 IntCal20		26110
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 7, Gaspur, downthrown, reworked shell	-33.1	-33.1	Charcoal, piece	AA-007337	9515	80		10579	10847	11141	calib 8.10 IntCal20		26111
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 7, Marine, downthrown	-26.6	-26.6	Peat, saltwater	AA-007338	8755	75		9544	9766	10124	calib 8.10 IntCal20		26073
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 7, Gaspur, downthrown	-43.6	-43.6	Wood, piece	AA-007339	10325	110		11748	12159	12611	calib 8.10 IntCal20		26120

Appendix D-3: Geological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 5, Gaspur, upthrown, questionable date	-25.2	-25.2	Charcoal	AA-007340	9015	75		9896	10169	10370	calib 8.10 IntCal20		26229
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 5, Marine, upthrown, transition	-25	-25	Charcoal, piece	AA-007341	9355	85		10259	10566	10994	calib 8.10 IntCal20		26069
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 5, Marine, upthrown, transition	-24.5	-24.5	Wood, piece	AA-007342	8930	75		9769	10034	10235	calib 8.10 IntCal20		26105
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 5, Marine, upthrown	-20	-20	Charcoal	AA-007343	8675	75		9528	9656	9904	calib 8.10 IntCal20		26070
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 5, Marine, upthrown	-17.8	-17.8	Wood	AA-007344	8140	80		8776	9095	9403	calib 8.10 IntCal20		26103
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 14, Marine, downthrown, base of infill channel	-26.2	-26.2	Peat, freshwater	AA-007345	8965	90		9730	10056	10253	calib 8.10 IntCal20		26072
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 1, Paleo-channel, upthrown	-12.3	-12.3	Shell-m, fragment	AA-007347	7390	80		7387	7607	7850	calib 8.10 Marine20; 70±65		26094
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 1, Paleo-channel, upthrown	-10.8	-10.8	Shell-m, marine	AA-007348	7535	75		7519	7745	7966	calib 8.10 Marine20; 70±65		26096
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 1, San Pedro, upthrown	-9.2	-9.2	Shell-m, fragment	AA-007349	7015	75		7000	7258	7480	calib 8.10 Marine20; 70±65		26093
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 1, San Pedro, upthrown	-7.9	-7.9	Shell-m, fragment	AA-007350	6650	65		6623	6864	7141	calib 8.10 Marine20; 70±65		26092
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 1, San Pedro, upthrown	-7.3	-7.3	Shell-m, fragment	AA-007351	6455	70		6383	6640	6908	calib 8.10 Marine20; 70±65		26090
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 1, San Pedro, upthrown	-6.7	-6.7	Shell-m, fragment	AA-007352	6000	70		5906	6148	6384	calib 8.10 Marine20; 70±65		26089
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 1, San Pedro, upthrown	-6.3	-6.3	Shell-m, fragment	AA-007353	6560	65		6490	6761	7019	calib 8.10 Marine20; 70±65		26091
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 3, Gaspur, downthrown, reworked shell	-45	-45	Shell-m, fragment	AA-007354	48500	-					N/A - inexact age		26231
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 3, Marine, downthrown	-17.3	-17.3	Shell-m, fragment	AA-007355	7940	70		7930	8156	8378	calib 8.10 Marine20; 70±65		26081
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 3, Paleo-channel, downthrown	-15.6	-15.6	Shell-m, fragment	AA-007356	7340	65		7347	7558	7775	calib 8.10 Marine20; 70±65		26082
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 3, Paleo-channel, downthrown	-13.8	-13.8	Shell-m, fragment	AA-007357	7425	80		7416	7640	7876	calib 8.10 Marine20; 70±65		26083
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 3, San Pedro, downthrown	-11.4	-11.4	Shell-m, fragment	AA-007358	6440	65		6373	6622	6885	calib 8.10 Marine20; 70±65		26084
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 3, San Pedro, downthrown, burrowing clam	-10.7	-10.7	Shell-m, fragment	AA-007359	600	65		0	60	125	calib 8.10 Marine20; 70±65		26226
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 3, San Pedro, downthrown	-9.5	-9.5	Shell-m, marine	AA-007360	5525	60		5421	5641	5890	calib 8.10 Marine20; 70±65		26075
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 3, San Pedro, downthrown	-6.9	-6.9	Shell-m, fragment	AA-007361	4525	60		4145	4435	4726	calib 8.10 Marine20; 70±65		26085
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 3, Recent sand, downthrown	-6.9	-6.9	Shell-m, fragment	AA-007362	1120	70		282	486	665	calib 8.10 Marine20; 70±65		26086
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 5, Gaspur, upthrown, questionable date	-29.9	-29.9	Shell-m, fragment	AA-007363	8025	70		7997	8244	8472	calib 8.10 Marine20; 70±65	McNeilan, Thomas W. 1996	32443
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 5, Marine, upthrown	-20	-20	Peat, saltwater	AA-007364	8865	80		9673	9960	10205	calib 8.10 IntCal20		26098
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 5, Paleo-channel, upthrown, burrowing clam	-17.8	-17.8	Shell-m, fragment	AA-007365	7915	75		7905	8130	8371	calib 8.10 Marine20; 70±65		26097
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 5, Paleo-channel, upthrown, burrowing clam	-12	-12	Shell-m, fragment	AA-007366	885	65		45	274	478	calib 8.10 Marine20; 70±65		26223
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 5, Paleo-channel, upthrown, reworked shell?	-10.8	-10.8	Shell-m, fragment	AA-007367	7895	65		7896	8110	8344	calib 8.10 Marine20; 70±65		26230
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 5, San Pedro, upthrown, burrowing clam	-10	-10	Shell-m, fragment	AA-007368	850	70		4	237	431	calib 8.10 Marine20; 70±65		26220
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 5, Recent sand, upthrown, burrowing clam	-9.7	-9.7	Shell-m, marine	AA-007369	850	55		15	237	431	calib 8.10 Marine20; 70±65		26219
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 7, Gaspur, downthrown, reworked shell	-33.9	-33.9	Shell-m, fragment	AA-007370	46500	-					N/A - inexact age		26233
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 7, Gaspur, downthrown, reworked shell	-33.1	-33.1	Shell-m, fragment	AA-007371	43900	-					N/A - inexact age		26232
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 7, Marine, downthrown	-22.7	-22.7	Shell-m, fragment	AA-007372	7800	70		7779	8014	8266	calib 8.10 Marine20; 70±65		26087
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 7, Paleo-channel, downthrown, burrowing clam	-15.1	-15.1	Shell-m, fragment	AA-007373	925	55		90	316	502	calib 8.10 Marine20; 70±65		26225
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 7, San Pedro, downthrown, burrowing clam	-14.3	-14.3	Shell-m, marine	AA-007374	4345	90		3863	4195	4516	calib 8.10 Marine20; 70±65		26076

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County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 7, San Pedro, downthrown	-13.8	-13.8	Shell-m, fragment	AA-007375	4575	60		4235	4502	4791	calib 8.10 Marine20; 70±65		26099
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 7, San Pedro, downthrown, burrowing clam	-12.7	-12.7	Shell-m, fragment	AA-007376	930	50		101	321	503	calib 8.10 Marine20; 70±65		26224
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 7, San Pedro, downthrown, burrowing clam	-11.8	-11.8	Shell-m, marine	AA-007377	1035	75		185	409	623	calib 8.10 Marine20; 70±65		26222
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 7, San Pedro, downthrown	-11.4	-11.4	Shell-m, fragment	AA-007378	830	155		1	235	488	calib 8.10 Marine20; 70±65		26100
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 7, San Pedro, downthrown, burrowing clam	-11	-11	Shell-m, fragment	AA-007379	735	55		1	139	307	calib 8.10 Marine20; 70±65		26221
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 7, Recent sand, downthrown	-10	-10	Shell-m, marine	AA-007380	825	60		1	212	404	calib 8.10 Marine20; 70±65		26101
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 114, Paleo-channel, upthrown	-26.2	-26.2	Shell-m, marine	AA-007381	7335	75		7330	7554	7781	calib 8.10 Marine20; 70±65		26078
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 114, Paleo-channel, upthrown, base of infill channel	-23.5	-23.5	Shell-m, marine	AA-007382	7305	70		7309	7526	7743	calib 8.10 Marine20; 70±65		26077
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 7, San Pedro, downthrown	-12.7	-12.7	Shell-m, marine	Beta-052715	3540	60		2909	3174	3422	calib 8.10 Marine20; 70±65		26088
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 7, San Pedro, downthrown	-11.1	-11.1	Shell-m, marine	Beta-052716	4420	150		3855	4292	4763	calib 8.10 Marine20; 70±65		26228
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 7, Gaspur, downthrown	-45.5	-45.5	Wood, piece	QL-4501	10730	80		12501	12714	12824	calib 8.10 IntCal20		26116
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 3, Gaspur, downthrown	-45	-45	Charcoal	QL-4502	11520	150		13111	13390	13741	calib 8.10 IntCal20		26112
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 3, Gaspur, downthrown	-37.4	-37.4	Peat, saltwater	QL-4503	9960	90		11219	11455	11802	calib 8.10 IntCal20		26113
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 3, Gaspur, downthrown	-36.6	-36.6	Wood	QL-4504	9670	75		10767	11021	11228	calib 8.10 IntCal20		26114
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 1, San Pedro, upthrown, base of deposit	-10.4	-10.4	Charcoal, piece	QL-4505	6550	200		6993	7432	7825	calib 8.10 IntCal20		26068
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 5, Marine, upthrown	-19.1	-19.1	Wood, piece	QL-4506	8120	130		8642	9053	9417	calib 8.10 IntCal20		26104
LAN		383632	3732923	0	Coastal bay/marsh	Outer Harbor, PV Fault	Boring 7, San Pedro, downthrown, burrowing clam	-10.5	-10.5	Shell-m, fragment	QL-4507	520	70		0	38	108	calib 8.10 Marine20; 70±65		26227
LAN		376096	3732977	129	Landslide	Pacific Palisades	Sample of wood from stump or burl apparently overridden by base of an older landslide in lower Temescal Canyon (McGill, 1973, landslide no. 38), recovered from depth of 37 ft (11.3 m) in borehole during remedial work in 1969	1130	1130	Wood	UM-(?)	810	60		653	726	903	calib 8.10 IntCal20		30075
LAN		375715	3733552	182	Floodplain	Palos Verdes Hills	SE of Palos Verdes Dr E & Palos Verdes Dr S intersection, found in bulldozer cut on eastern margin of main slide, in alluvium of former stream channel?			Wood,		2915	205		2514	3076	3569	calib 8.10 IntCal20	Stout, M. L. 1969, Stout, M. L. 1977	22421
LAN		375715	3733552	182	Hill, ridge	Palos Verdes Hills	South Shores Mobile Home Park near intersection of Palos Verdes Dr East and Palos Verdes Dr South, (P. Ehlig 1968, pers. Comm.)			Charcoal, or wood?		16200	240		18970	19557	20153	calib 8.10 IntCal20	Stout, M. L. 1977	22420
LAN		398919	3782406	298	Fan, fault	Pasadena, Eaton Canyon	Eaton Canyon, Sierra Madre Fault			Charcoal	UCLA-2079a	200	80		1	191	432	calib 8.10 IntCal20	Crook, R. C. 1978	7865
LAN		388857	3735083	5	Coastal bay/marsh	Pier G	Pier G			Shell-m, marine	LJ-0241	1160	200		97	517	914	calib 8.10 Marine20; 70±65	Hubbs, C. L. 1962	7833
LAN		373898	3733801	0	Beach	Portuguese Bend Beach	Recent shells, low tide, June 28, 1952, from Portuguese Bend on S (open sea) side of Palos Verdes Hills, Los Angeles Co., Calif. Collected by M. N. Bramlette.			Shell-m, marine assumed	L-0144d	1500	200		462	835	1266	calib 8.10 Marine20; 70±65	Kulp, J. L. 1952	7900
LAN	CA-LAN-0272	397518	3735100	4	Coastal bay/marsh	San Gabriel River	Clam shells (Chione undatella) from ca. 4.75 m below sea level, in shell layer, interpreted as estuarine, containing a human skull at -4.95 m; site LAN-272, between S bank of San Gabriel River and northern boundary of Orange County, on W side of Highway	-475	-475	Shell-m, Chione undatella	UCLA-0119	980	80		1	191	386	calib 8.10 Marine20; 70±65	Fergusson, G. J. 1962, Bright, M. 1965, Hubbs, C. L. 1962	7649

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County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN		398780	3776815	187	Fan, fault	San Marino High	Raymond Fault, San Marino High School, Trench A, Profile D, IIIC1 horizon; mapped as Urban land-Azuvin-Montebello complex, 0 to 5 percent slopes	160	160	Charcoal	UCLA-(?)	10100	300		10794	11747	12683	calib 8.10 IntCal20	Borchardt, Glenn 1985	32473
LAN		398780	3776815	187	Fan, fault	San Marino High	Raymond Fault, San Marino High School, Trench A, Profile D, IIIC1 horizon; mapped as Urban land-Azuvin-Montebello complex, 0 to 5 percent slopes	160	160	Charcoal	UCLA-(?)	10100	300		10794	11747	12683	calib 8.10 IntCal20	Borchardt, Glenn 1985	33277
LAN		398780	3776815	187	Marsh, inland	San Marino High	Raymond Fault, San Marino High School trench 14, mapped as Urban land-Azuvin-Montebello complex, 0 to 5 percent slopes	380	380	Peat, clayey, freshwater	USGS-0402	35800	1300		37803	40587	42354	calib 8.10 IntCal20	Crook, R. C. 1978	7810
LAN		398780	3776815	187	Raymond Fault	San Marino High	San Marino trench 14, C-16	380	380	Peat, clayey	USGS-0407	35800	1300		38931	40737	42271	calib 8.10 IntCal20		30156
LAN		398780	3776815	187	Marsh, inland	San Marino High	Raymond Fault, San Marino High School trench 14, mapped as Urban land-Azuvin-Montebello complex, 0 to 5 percent slopes	300	300	Peat, freshwater	USGS-0408	29100	400		32238	33530	34360	calib 8.10 IntCal20	Crook, R. C. 1978	7811
LAN		398780	3776815	187	Fan, fault	San Marino High	Raymond Fault, San Marino High School, Trench A, Profile D, IIA32 horizon, in fault tongue; mapped as Urban land-Azuvin-Montebello complex, 0 to 5 percent slopes	61	71	Soil (SOC)	WSU-?	5360	300		5474	6131	6825	calib 8.10 IntCal20	Borchardt, Glenn 1985	32564
LAN		398780	3776815	187	Fan, fault	San Marino High	Raymond Fault, San Marino High School trench 14, mapped as Urban land-Azuvin-Montebello complex, 0 to 5 percent slopes	190	190	Organic silt	WSU-1849	10600	160		11951	12518	12826	calib 8.10 IntCal20	Crook, R. C. 1978	7812
LAN		398780	3776815	187	Fan, fault	San Marino High	Raymond Fault, San Marino High School trench 14, in fault tongue; mapped as Urban land-Azuvin-Montebello complex, 0 to 5 percent slopes	90	90	Soil (SOC)	WSU-1850	6060	110		6665	6924	7242	calib 8.10 IntCal20	Crook, R. C. 1978	7813
LAN		398780	3776815	187	Fan, fault	San Marino High	Raymond Fault, San Marino High School trench 14; mapped as Urban land-Azuvin-Montebello complex, 0 to 5 percent slopes	80	80	Soil (SOC)	WSU-1851	3575	100		3583	3875	4149	calib 8.10 IntCal20	Crook, R. C. 1978	7814
LAN		398780	3776815	187	Fan, fault	San Marino High	Raymond Fault, San Marino High School trench 14; mapped as Urban land-Azuvin-Montebello complex, 0 to 5 percent slopes	50	50	Soil (SOC)	WSU-1852	1630	100		1312	1514	1714	calib 8.10 IntCal20	Crook, R. C. 1978	7815
LAN		398780	3776815	187	Fan, fault	San Marino High	Raymond Fault, San Marino High School, Trench A, Profile D, west wall; mapped as Urban land-Azuvin-Montebello complex, 0 to 5 percent slopes	210	210	Organic silt		10600	60		12482	12635	12727	calib 8.10 IntCal20	Borchardt, Glenn 1985	32472
LAN		399809	3777061	182	Fan, fault	San Marino, Sunny Slope	Raymond Fault, Sunny Slope trench (1973); Urban land-Palmview-Tujunga complex, 0 to 5 percent slopes			Soil (SOC)	GX-03239	2920	180		2719	3081	3550	calib 8.10 IntCal20	Crook, R. C. 1978	3001
LAN		399809	3777061	182	Fan, fault	San Marino, Sunny Slope	Raymond Fault, Sunny Slope trench 7, near southeast corner of reservoir; Urban land-Palmview-Tujunga complex, 0 to 5 percent slopes	370	370	Organic silty clay	WSU-1834	25400	700		28262	29627	31028	calib 8.10 IntCal20	Crook, R. C. 1978	7868
LAN		399809	3777061	182	Marsh, inland	San Marino, Sunny Slope	Raymond Fault, Sunny Slope trench 7, near southeast corner of reservoir; Urban land-Palmview-Tujunga complex, 0 to 5 percent slopes	330	330	Peat, freshwater	WSU-1835	25500	590		28652	29731	30988	calib 8.10 IntCal20	Crook, R. C. 1978	7866
LAN		399809	3777061	182	Fan, fault	San Marino, Sunny Slope	Raymond Fault, Sunny Slope trench 7, near southeast corner of reservoir, sample out of place; Urban land-Palmview-Tujunga complex, 0 to 5 percent slopes			Soil (SOC)	WSU-1837	2160	105		1844	2145	2354	calib 8.10 IntCal20	Crook, R. C. 1978	7871
LAN		399809	3777061	182	Fan, fault	San Marino, Sunny Slope	Raymond Fault, Sunny Slope trench 7, near southeast corner of reservoir, sample out of place; Urban land-Palmview-Tujunga complex, 0 to 5 percent slopes			Organic silty clay	WSU-1838	20990	440		24135	25223	26029	calib 8.10 IntCal20	Crook, R. C. 1978	7869

Appendix D-3: Geological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN		380893	3734195	22	Terrace, coastal	San Pedro	Calas Park, Shell (Schizothaerus nuttallii) W side of Mesa St., 100' S of 3rd St., San Pedro, Calif., alt. about 75'. Palos Verdes sand (marine deposits on lowest terrace) assigned to late Pleistocene. Collected by W. P. Woodring.			Shell-m, marine	L-0144a	30000	-					N/A - inexact age	Kulp, J. L. 1952, Carter, G. F. 1957, Carr, D. R. 1954	7899
LAN		370888	3771294	78	Fan	Santa Monica Blvd.	Boring-1, Qoa1, Top of 4Bt2b unit, elev. 240.6	488	488	Soil, bulk	UCIAMS-247449	11210	25		13094	13125	13163	calib 8.10 IntCal20		33871
LAN		371545	3771822	71	Fan	Santa Monica Blvd.	Boring-9	564	564	Soil, bulk	UCIAMS-247450	21050	80		25187	25414	25644	calib 8.10 IntCal20		33872
LAN		371655	3771907	70	Fan	Santa Monica Blvd.	Boring-10	366	366	Soil, bulk	UCIAMS-247451	12745	30		15083	15201	15314	calib 8.10 IntCal20		33873
LAN		370888	3771294	78	Fan	Santa Monica Blvd.	Boring-1, Qoa1, Top of 4Bt2b unit, elev. 240.6	488	488	Carbon, reworked in soil	UCIAMS-247453	10730	120		12207	12705	12970	calib 8.10 IntCal20		33874
LAN		371232	3771566	75	Fan	Santa Monica Blvd.	Boring-7, Qoa2, Top of 7Bwb unit, elev. 314.0	1021	1021	Carbon, reworked in soil	UCIAMS-247454	30990	400		34600	35363	36138	calib 8.10 IntCal20		33875
LAN		371330	3771637	73	Fan	Santa Monica Blvd.	Boring-8	1097	1097	Carbon, reworked in soil	UCIAMS-247455	35130	340		39587	40273	40964	calib 8.10 IntCal20		33876
LAN		371655	3771907	70	Fan	Santa Monica Blvd.	Boring-10	457	457	Carbon, reworked in soil	UCIAMS-247456	15950	80		19042	19260	19482	calib 8.10 IntCal20		33877
LAN		371545	3771822	71	Fan	Santa Monica Blvd.	Boring-9	701	701	Carbon, reworked in soil	UCIAMS-247966	25920	180		29922	30183	30736	calib 8.10 IntCal20		33878
LAN		359676	3766524	55	Terrace, Coastal	Santa Monica Canyon	Santa Monica Canyon			Charcoal	W-1034	35000	-					N/A - inexact age	Ives, D. C. 1964	7832
LAN		366032	3768413	79	Fan	Santa Monica Fault	TKR C1			Charcoal	Beta-057044	1070	70		794	984	1176	calib 8.10 IntCal20		33601
LAN		366032	3768413	79	Fan	Santa Monica Fault	SMF Trench 1-1			Charcoal	Beta-057045	1150	70		927	1065	1263	calib 8.10 IntCal20		33602
LAN		366032	3768413	79	Fan	Santa Monica Fault	SMF T1-4			Charcoal	Beta-057046	670	50		553	627	679	calib 8.10 IntCal20		33603
LAN		366032	3768413	79	Fan	Santa Monica Fault	SMF T1-25			Charcoal	Beta-057047	320	70		1	383	511	calib 8.10 IntCal20		33604
LAN		366032	3768413	79	Fan	Santa Monica Fault	SMF T1-29			Charcoal	Beta-057048	270	70		1	322	495	calib 8.10 IntCal20		33605
LAN		366032	3768413	79	Fan	Santa Monica Fault	SMF T2-15			Charcoal	Beta-057050	220	70		1	206	440	calib 8.10 IntCal20		33606
LAN		366032	3768413	79	Fan	Santa Monica Fault	SMF T1-3			Charcoal	Beta-057052	655	55		546	613	676	calib 8.10 IntCal20		33607
LAN		366032	3768413	79	Fan	Santa Monica Fault	SMF T1-9			Charcoal	Beta-057053	660	50		552	616	675	calib 8.10 IntCal20		33608
LAN		366032	3768413	79	Fan	Santa Monica Fault	SMF T1-24			Charcoal	Beta-057054	320	55		157	388	495	calib 8.10 IntCal20		33609
LAN		366032	3768413	79	Fan	Santa Monica Fault	SMF T1-28			Charcoal	Beta-057055	535	50		501	550	645	calib 8.10 IntCal20		33610
LAN		366032	3768413	79	Fan	Santa Monica Fault	SMF T2-3			Charcoal	Beta-057056	440	50		319	490	545	calib 8.10 IntCal20		33611
LAN		366032	3768413	79	Fan	Santa Monica Fault	SMF T1 2A (bulk MRT)			Soil, bulk	Beta-063639	2290	70		2104	2277	2671	calib 8.10 IntCal20		33612
LAN		366032	3768413	79	Fan	Santa Monica Fault	SMF T1 3A (bulk soil)			Soil, bulk	Beta-063640	14820	100		17857	18121	18277	calib 8.10 IntCal20		33613
LAN		366032	3768413	79	Fan	Santa Monica Fault	SMF T1.3 (bulk soil); too young per authors			Soil, bulk	Beta-069087	10690	60		12508	12699	12751	calib 8.10 IntCal20		33614
LAN		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core SB- R1	46	47	Plant, detrial fragments	Beta-491494	340	30		312	390	475	calib 8.10 IntCal20	Balmakia, Behnaz 2019	32454
LAN		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core SB- R2	135	135	Plant, detrial fragments	Beta-491495	1820	30		1624	1720	1821	calib 8.10 IntCal20	Balmakia, Behnaz 2019	32455
LAN		389796	3736181	0	Coastal bay/marsh	Shoreline Village	Shoreline Village Marina			Shell-m, marine	LJ-0240	255	150		0	10	70	calib 8.10 Marine20; 70±65	Hubbs, C. L. 1962	7831
LAN		400759	3782029	351	Fan, fault	Sierra Madre Villa Dam	Pasadena Glen trench CIT 20C, Sierra Madre Fault, north of Sierra Madre Villa Dam; mapped as Trigo but Urban land-Soboba-Tujunga complex, 5 to 15 percent slopes inferred			Wood,	UCLA-2079b	2200	80		1997	2198	2348	calib 8.10 IntCal20	Crook, R. C. 1978	7864
LAN		374798	3770043	53	Tar seep	Sycamore & La Brea	1814 Sycamore & La Brea			Wood,	QC-504	46500	465		47666	48862	50176	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	597
LAN		424943	3763301	225	Terrace, Coastal	Sycamore Canyon Park	Sycamore Canyon Park			Charcoal	GX-04042	19075	510		21977	23044	24190	calib 8.10 IntCal20	Stout, M. L. 1977	3216
LAN		358395	3767533	45	Hill, ridge	Temescal Canyon	Wood (stump or burf?) overridden by base of older landslide in lower Temescal Canyon (McGill, 1973, landslide no. 38), and recovered from borehole at depth of 37 ft (11.3 m) during remedial work in 1969; date of 810±60 years B.P. per University of MI	1130	1130	Wood	Miami	810	60		653	726	903	calib 8.10 IntCal20	McGill, John T. 1982	33154

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County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
LAN		387018	3736214	5	Coastal bay/marsh	Terminal Island	Wood from well (WP-8) drilled by the John Beylik Co, on Union Pacific Railroad Co, lease, Terminal Island, Long Beach, depth 44.2 to 46.05 m below mean sea level in a coarse blue-gray sand and gravel layer (33° 45' 46" N Lat, 118° 13' 44" W Long)	-42.2	-46.05	Wood,	UCLA-0120	9650	150		10518	10968	11393	calib 8.10 IntCal20	Fergusson, G. J. 1963, Hubbs, C. L. 1962	7901
LAN		353927	3767711	9	Floodplain	Topanga Creek	Core 3, Strat. IX, 2Ab horizon, dune soil, buried by fill	798.58	798.576	Organic sediment	D-AMS 042840	420	20		461	495	514	calib 8.10 IntCal20	Meyer, Jack 2021	32217
LAN		353927	3767711	9	Floodplain	Topanga Creek	Core 6, Strat. VI, 3Cg horizon, wetland below midden, buried by fill	963.17	963.168	Organic sediment	D-AMS 042841	2252	22		2156	2226	2339	calib 8.10 IntCal20	Meyer, Jack 2021	32218
LAN		353927	3767711	9	Floodplain	Topanga Creek	Core 7, Strat. II, 2Cg horizon, wetland, buried by fill	1341.1	1341.12	Organic sediment	D-AMS 042842	7164	29		7936	7981	8020	calib 8.10 IntCal20	Meyer, Jack 2021	32220
LAN		353927	3767711	9	Floodplain	Topanga Creek	Core 18, Strat. IV, 3Cg horizon, channel below midden, buried by fill	883.92	883.92	Organic sediment	D-AMS 042843	2940	25		2972	3100	3204	calib 8.10 IntCal20	Meyer, Jack 2021	32219
LAN		353927	3767711	9	Floodplain	Topanga Creek	Core 10, Strat. X, 2Cg horizon, historical channel, buried by fill	1051.6	1051.56	Wood, root	D-AMS 042844	131	20		10	108	269	calib 8.10 IntCal20	Meyer, Jack 2021	32216
LAN		363068	3796824	363	Floodplain	Ultra Violet Facility	Trench 5, in Chular series			Charcoal, Microcharcoal	PRI-12-113-T5-2	8550	30		9487	9530	9545	calib 8.10 IntCal20	Puseman, Kathryn 2012	32226
LAN		363068	3796824	363	Floodplain	Ultra Violet Facility	Trench 5, in Chular series			Charcoal, Microcharcoal	PRI-12-113-T5-3	8610	35		9530	9557	9677	calib 8.10 IntCal20	Puseman, Kathryn 2012	32227
LAN		374798	3770043	53	Fan	Universal	Non-La Brea - Universal			Wood, Juniperus sp.	L-0021	8820	40		9690	9863	10146	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Ward 2005	778
LAN		366057	3794254	314	Floodplain	Van Norman Res., La Rinda	La Rinda Shopping Center			Wood,	I-06695	1700	90		1385	1590	1818	calib 8.10 IntCal20	Buckley, J. 1976	7842
LAN		366057	3794254	314	Floodplain	Van Norman Res., La Rinda	La Rinda Shopping Center			Carbonate	I-07193	945	90		682	847	1052	calib 8.10 IntCal20	Yerkes, R. F. 1974	7824
LAN		366057	3794254	314	Marsh, inland	Van Norman Res., La Rinda	La Rinda Shopping Center			Peat, freshwater	I-07195	1595	95		1306	1480	1698	calib 8.10 IntCal20	Yerkes, R. F. 1974	7822
LAN		366057	3794254	314	Floodplain	Van Norman Res., La Rinda	La Rinda Shopping Center			Organic, gyttja	I-07196	4890	255		4966	5616	6262	calib 8.10 IntCal20	Yerkes, R. F. 1974	7821
LAN		366057	3794254	314	Marsh, inland	Van Norman Res., La Rinda	La Rinda Shopping Center			Peat, freshwater	I-07199	1350	90		1060	1253	1406	calib 8.10 IntCal20	Yerkes, R. F. 1974	7823
LAN		366057	3794254	314	Floodplain	Van Norman Res., La Rinda	La Rinda Shopping Center			Organic, gyttja	W-2747	9580	300		10166	10918	11934	calib 8.10 IntCal20	Yerkes, R. F. 1974, Spiker, E. 1974	7820
LAN		363916	3794508	305	Floodplain	Van Norman Res., Lower Basin	Lower Retention Basin			Wood,	I-06696	355	90		1	394	543	calib 8.10 IntCal20	Buckley, J. 1976	7838
LAN		363916	3794508	305	Floodplain	Van Norman Res., Lower Basin	Lower Retention Basin			Wood,	I-06697	430	85		302	459	627	calib 8.10 IntCal20	Buckley, J. 1976	7837
LAN		363916	3794508	305	Floodplain	Van Norman Res., Lower Basin	Lower Retention Basin			Wood,	I-06698	285	85		1	337	506	calib 8.10 IntCal20	Buckley, J. 1976	7840
LAN		363916	3794508	305	Floodplain	Van Norman Res., Lower Basin	Lower Retention Basin			Wood,	I-06715	660	95		507	622	769	calib 8.10 IntCal20	Buckley, J. 1976	7835
LAN		363916	3794508	305	Marsh, inland	Van Norman Res., Lower Basin	Lower Retention Basin			Peat, freshwater	I-06716	285	85		1	337	506	calib 8.10 IntCal20	Buckley, J. 1976	7839
LAN		363916	3794508	305	Floodplain	Van Norman Res., Lower Basin	Lower Retention Basin			Carbonate	I-06717	830	90		571	759	925	calib 8.10 IntCal20	Buckley, J. 1976	7836
LAN		363916	3794508	305	Floodplain	Van Norman Res., Lower Basin	Lower Retention Basin			Carbonate	I-06944	2715	90		2540	2836	3102	calib 8.10 IntCal20	Buckley, J. 1976	7834
LAN		363916	3794508	305	Floodplain	Van Norman Res., Lower Basin	Lower Retention Basin			Organic, gyttja	I-07197	8665	120		9471	9694	10146	calib 8.10 IntCal20	Yerkes, R. F. 1974	7818
LAN		363916	3794508	305	Marsh, inland	Van Norman Res., Lower Basin	Lower Retention Basin			Peat, freshwater	I-07332	1615	85		1346	1494	1701	calib 8.10 IntCal20	Yerkes, R. F. 1974	7819
LAN		363916	3794508	305	Floodplain	Van Norman Res., Lower Basin	Lower Retention Basin			Organic, gyttja	W-2146	10000	300		10702	11598	12611	calib 8.10 IntCal20	Yerkes, R. F. 1974, Spiker, E. 1974	7817
LAN		363916	3794508	305	Floodplain	Van Norman Res., Lower Basin	Lower Retention Basin			Organic, gyttja	W-2745	40000	-				N/A - inexact age	Yerkes, R. F. 1974, Spiker, E. 1974	7816	
LAN	CA-LAN-1311H	400964	3766287	68	Hill, ridge	Whittier Narrows	8: 110-120 cm	110	120	Charcoal		22266	580		25382	26563	27688	calib 8.10 IntCal20	Greenwood, R. S. 1989	7596
LAN		374798	3770043	53	Terrace, Coastal	Wilshire & Curson	7247 Wilshire & Curson			Bone, metacarpal Bison antiquus	QC-570	23630	4560		18957	27652	36010	calib 8.10 IntCal20	O'Keefe, F. R. 2009, Marcus 1984	698
ORA	CA-ORA-1011	428148	3723607	85	Hill, ridge	Area 17	Unit 1	0	50	Shell-m, marine	Beta-156169	0	0	-0.5				N/A - Modern	Drover, Christopher E. 2001	32815
ORA	CA-ORA-1525	427488	3723554	71	Hill, ridge	Area 17	Unit 14	0	40	Shell-m, marine	Beta-156619	45900	1060	-1.1	45338	47454	49878	calib 8.10 Marine20; 70±65	Drover, Christopher E. 2001	32827
ORA	CA-ORA-1528	428433	3722467	154	Hill, ridge	Area 17	Unit 2	0	30	Shell-m, marine	Beta-156830	0	0	-0.5				N/A - Modern	Drover, Christopher E. 2001	32830
ORA		407593	3724558	10	Terrace, coastal	Huntington Beach	Caliche associated megafaunal remains dated to 19,890±120 14C yr BP (Beta-136197)			Carbonate, caliche	Beta-136197	19890	120		23748	23930	24225	calib 8.10 IntCal20	Wake, Thomas A. 2009	32791
ORA		409522	3723238	4	Coastal bay/marsh	Huntington Beach	Boring B2-12	-225.6	-225.55	Organic, unknown	Beta-166268	2330	50		2155	2349	2668	calib 8.10 IntCal20	GeoLogic Associates 2002	26052
ORA		409522	3723238	4	Coastal bay/marsh	Huntington Beach	Boring B2-28	-518.2	-518.16	Organic, unknown	Beta-166269	6570	60		7335	7475	7573	calib 8.10 IntCal20	GeoLogic Associates 2002	26056

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ORA		409522	3723238	4	Coastal bay/marsh	Huntington Beach	Boring B2-48	-957.1	-957.07	Organic, unknown	Beta-166270	7610	50		8342	8406	8536	calib 8.10 IntCal20	GeoLogic Associates 2002	26058
ORA		409522	3723238	4	Coastal bay/marsh	Huntington Beach	Boring B1-55	-1369	-1368.6	Organic, unknown	Beta-166271	10310	70		11831	12128	12470	calib 8.10 IntCal20	GeoLogic Associates 2002	26062
ORA		409522	3723238	4	Coastal bay/marsh	Huntington Beach	Boring B2-49	-1856	-1856.2	Organic, unknown	Beta-166272	8590	100		9328	9593	9900	calib 8.10 IntCal20	GeoLogic Associates 2002	26059
ORA		409522	3723238	4	Coastal bay/marsh	Huntington Beach	Boring B6-27	-1917	-1917.2	Organic, unknown	Beta-169351	4390	80		4840	5006	5286	calib 8.10 IntCal20	GeoLogic Associates 2002	26054
ORA		409522	3723238	4	Coastal bay/marsh	Huntington Beach	Boring B4-55	-2012	-2011.7	Organic, unknown	Beta-169352	7210	60		7935	8019	8172	calib 8.10 IntCal20	GeoLogic Associates 2002	26057
ORA		409522	3723238	4	Coastal bay/marsh	Huntington Beach	Boring B6-76	-2207	-2206.8	Organic, unknown	Beta-169354	8630	50		9496	9598	9713	calib 8.10 IntCal20	GeoLogic Associates 2002	26060
ORA		409522	3723238	4	Coastal bay/marsh	Huntington Beach	Boring B4-81	-2268	-2267.7	Organic, unknown	Beta-169355	9980	60		11249	11457	11709	calib 8.10 IntCal20	GeoLogic Associates 2002	26061
ORA		407593	3724558	10	Terrace, coastal	Huntington Beach	A freshwater mollusk shell from dark organic layer with microfossils remains dated 40,980±800 AMS 14C yr BP			Shell-f, mollusk	Beta-224795	40980	800		42812	43914	45029	calib 8.10 IntCal20	Wake, Thomas A. 2009	33002
ORA		429617	3719052	112	Lake, playa	Laguna Canyon Lake	Core 1 at south end of Lake 3, southeastern most lake at 33° 36' 32.09" N, 117° 45' 31.19" W, 12-ORA-133-1			Organic Sediment	Beta-242651	9470	50	-24.4	10572	10718	11069	calib 8.10 IntCal20	Wigand, Peter E. 2008	29583
ORA		429617	3719052	112	Lake, playa	Laguna Canyon Lake	Core 1 at south end of Lake 3, southeastern most lake at 33° 36' 32.09" N, 117° 45' 31.19" W, 12-ORA-133-2			Organic Sediment	Beta-242652	9690	40	-25.9	10809	11127	11215	calib 8.10 IntCal20	Wigand, Peter E. 2008	29584
ORA		429617	3719052	112	Lake, playa	Laguna Canyon Lake	Core 1 at south end of Lake 3, southeastern most lake at 33° 36' 32.09" N, 117° 45' 31.19" W, 12-ORA-133-3			Organic Sediment	Beta-242653	9600	40	-26.9	10765	10937	11165	calib 8.10 IntCal20	Wigand, Peter E. 2008	29585
ORA		429617	3719052	112	Lake, playa	Laguna Canyon Lake	Core 1 at south end of Lake 3, southeastern most lake at 33° 36' 32.09" N, 117° 45' 31.19" W, 12-ORA-133-4			Wood	Beta-242654	126	30	-24.3	8	115	273	calib 8.10 IntCal20	Wigand, Peter E. 2008	29586
ORA		429617	3719052	112	Lake, playa	Laguna Canyon Lake	Core 1 at south end of Lake 3, southeastern most lake at 33° 36' 32.09" N, 117° 45' 31.19" W, 12-ORA-133-5			Organic Sediment	Beta-242655	9740	40	-26.1	10898	11189	11244	calib 8.10 IntCal20	Wigand, Peter E. 2008	29587
ORA		429617	3719052	112	Lake, playa	Laguna Canyon Lake	Core 1 at south end of Lake 3, southeastern most lake at 33° 36' 32.09" N, 117° 45' 31.19" W, 12-ORA-133-6			Organic Sediment	Beta-242656	10190	40	-25.5	11652	11858	11971	calib 8.10 IntCal20	Wigand, Peter E. 2008	29588
ORA		429617	3719052	112	Lake, playa	Laguna Canyon Lake	Core 1 at south end of Lake 3, southeastern most lake at 33° 36' 32.09" N, 117° 45' 31.19" W, 12-ORA-133-7			Organic Sediment	Beta-242657	10160	40	-26.3	11620	11806	11941	calib 8.10 IntCal20	Wigand, Peter E. 2008	29589
ORA		429617	3719052	112	Lake, playa	Laguna Canyon Lake	Core 1 at south end of Lake 3, southeastern most lake at 33° 36' 32.09" N, 117° 45' 31.19" W, 12-ORA-133-8			Organic Sediment	Beta-242658	10660	40	-25.9	12618	12692	12733	calib 8.10 IntCal20	Wigand, Peter E. 2008	29590
ORA	CA-ORA-0260	398915	3734918	11	Terrace, coastal	Landing Hill	Feature			Asphaltum	Beta-189221	34180	520		37595	39216	40447	calib 8.10 IntCal20	Cleland, James 2007	33897
ORA	CA-ORA-0263	399143	3735252	14	Terrace, coastal	Landing Hill	L2-7, 50-60 cm	50	60	Asphaltum	Beta-198243	20210	130		23885	24266	24630	calib 8.10 IntCal20	Cleland, James 2007	33944
ORA		398503	3735415	2	Coastal bay/marsh	Landing Hill core	Core, Green day w/ muscovite fragments (in place clay development?)	201	206	Organics	PRI-04-98-201-206	6335	20		7169	7257	7315	calib 8.10 IntCal20	Cleland, James 2007	33960
ORA		398503	3735415	2	Coastal bay/marsh	Landing Hill core	Core, coarse, poorly-sorted sand, channel or dune?	424	430	Organics	PRI-04-98-424-503	7690	35		8403	8474	8547	calib 8.10 IntCal20	Cleland, James 2007	33961
ORA		398503	3735415	2	Coastal bay/marsh	Landing Hill core	Core, fine, even sand, beach or near-shore dunes?	498	503	Organics	PRI-04-98-498-503	17200	70		20554	20754	20913	calib 8.10 IntCal20	Cleland, James 2007	33962
ORA	CA-ORA-1492	421837	3716310	68	Hill, ridge	Los Trancos Canyon	N5/E3, surface	0	2	Shell-m, Donax fossil	Beta-119394	41440	860	0.5	42428	43560	44728	calib 8.10 Marine20; 70±65	Strudwick, Ivan H. 1998	32743
ORA	CA-ORA-0183	408510	3726525	16	Terrace, coastal	Newland House	14: 50-60 cm, age greater than expected; may have been contaminated with asphaltic material	50	60	Charcoal	LJ-4999	11950	500	-24.9	12896	14037	15429	calib 8.10 IntCal20	Cottrell, M. G. 1981	6537
ORA		416747	3720018	5	Coastal bay/marsh	Newport Bay	freshwater marsh	14	16	Shell-f, Stagnicola spp.	CAMS-022804	8310	60		9039	9318	9472	calib 8.10 IntCal20		26050
ORA		416747	3720018	5	Coastal bay/marsh	Newport Bay, Shellmaker Island				Shell-m, limpet	CAMS-022895	5750	50		5637	5878	6123	calib 8.10 Marine20; 70±65		26197
ORA		416747	3720018	5	Coastal bay/marsh	Newport Bay, Shellmaker Island	freshwater marsh			Shell-f, snail shell	CAMS-024572	4130	60		4448	4667	4832	calib 8.10 IntCal20		26199

Appendix D-3: Geological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
ORA		416747	3720018	5	Coastal bay/marsh	Newport Bay, Shellmaker Island	freshwater marsh			Shell-f, 2 tiny snail shells	CAMS-024573	5190	60		5753	5958	6179	calib 8.10 IntCal20		26201
ORA		416747	3720018	5	Coastal bay/marsh	Newport Bay, Shellmaker Island	assumed by current author, based on species	940	1380	Shell-m, ostrea fragment	CAMS-024574	7140	60		7166	7376	7568	calib 8.10 Marine20; 70±65		26044
ORA		416747	3720018	5	Coastal bay/marsh	Newport Bay, Shellmaker Island				Shell-m, ostrea fragment	CAMS-024578	7630	90		7581	7836	8095	calib 8.10 Marine20; 70±65		26198
ORA		416747	3720018	5	Coastal bay/marsh	Newport Bay, Shellmaker Island	freshwater marsh	12	14	Shell-f, 2 Stagnicola spp. snail shells	CAMS-024579	8160	60		8992	9112	9395	calib 8.10 IntCal20		26045
ORA		416747	3720018	5	Coastal bay/marsh	Newport Bay, Shellmaker Island	freshwater marsh			Shell-f, 1 tiny snail shell	CAMS-024748	4940	60		5582	5674	5892	calib 8.10 IntCal20		26200
ORA		418404	3723918		Coastal bay/marsh	Newport Bay, upper	Core UNB13-04	232	127	Shell-m, marine	UCIAMS-121807	830	20		13	215	401	calib 8.10 Marine20; 70±65	Brown 2014	29599
ORA		418404	3723918		Coastal bay/marsh	Newport Bay, upper	Core UNB13-04	600	97	Shell-m, marine	UCIAMS-121808	5240	25		5101	5340	5556	calib 8.10 Marine20; 70±65	Brown 2014	29600
ORA		418404	3723918		Coastal bay/marsh	Newport Bay, upper	Core UNB13-01	97	232	Shell-m, marine	UCIAMS-128213	1410	15		566	732	905	calib 8.10 Marine20; 70±65	Brown 2014	29602
ORA		418404	3723918		Coastal bay/marsh	Newport Bay, upper	Core UNB13-02	127	127	Shell-m, marine	UCIAMS-128214	665	20		78	98	118	calib 8.10 Marine20; 70±65	Brown 2014	29603
ORA		418404	3723918		Coastal bay/marsh	Newport Bay, upper	Core UNB13-03	497	600	Shell-m, marine	UCIAMS-128215	5465	15		5347	5573	5774	calib 8.10 Marine20; 70±65	Brown 2014	29604
ORA		418404	3723918	6	Coastal bay/marsh	Newport Bay, upper	UNB13-02	49	49	Plant-m, Spartina	UCIAMS-128229	1340	70		1073	1249	1360	calib 8.10 IntCal20	Brown 2014	29605
ORA		418404	3723918	6	Coastal bay/marsh	Newport Bay, upper	Core name format: SitecodeYear-Core#	178	178	Shell-m, marine	UCIAMS-138975	625	20		1	117	257	calib 8.10 Marine20; 70±65	Thorn 2014	29615
ORA		418404	3723918	6	Coastal bay/marsh	Newport Bay, upper	Core name format: SitecodeYear-Core#	119	119	Shell-m, marine	UCIAMS-138976	635	20		1	119	256	calib 8.10 Marine20; 70±65	Thorn 2014	29616
ORA		418404	3723918	6	Coastal bay/marsh	Newport Bay, upper	Core name format: SitecodeYear-Core#	297	297	Shell-m, marine	UCIAMS-138977	2620	20		1629	1803	1978	calib 8.10 Marine20; 70±65	Thorn 2014	29617
ORA		418404	3723918	6	Coastal bay/marsh	Newport Bay, upper	Core name format: SitecodeYear-Core#	130	130	Shell-m, marine	UCIAMS-138978	800	20		1	154	274	calib 8.10 Marine20; 70±65	Thorn 2014	29618
ORA		418404	3723918	6	Coastal bay/marsh	Newport Bay, upper	Core name format: SitecodeYear-Core#	293	293	Shell-m, marine	UCIAMS-138979	2230	20		1227	1361	1522	calib 8.10 Marine20; 70±65	Thorn 2014	29619
ORA		418404	3723918	6	Coastal bay/marsh	Newport Bay, upper	Core name format: SitecodeYear-Core#	150	150	Shell-m, marine	UCIAMS-138980	825	20		1	159	278	calib 8.10 Marine20; 70±65	Thorn 2014	29620
ORA		418404	3723918	6	Coastal bay/marsh	Newport Bay, upper	Core name format: SitecodeYear-Core#	50	50	Shell-m, marine	UCIAMS-138981	1075	20		98	273	440	calib 8.10 Marine20; 70±65	Thorn 2014	29621
ORA		418404	3723918	6	Coastal bay/marsh	Newport Bay, upper	Core name format: SitecodeYear-Core#	163	163	Shell-m, marine	UCIAMS-138982	875	20		1	168	288	calib 8.10 Marine20; 70±65	Thorn 2014	29622
ORA		418404	3723918	6	Coastal bay/marsh	Newport Bay, upper	Core name format: SitecodeYear-Core#	56	56	Plant, terrestrial	UCIAMS-139010	255	20		154	300	422	calib 8.10 IntCal20	Thorn 2014	29629
ORA		418404	3723918		Coastal bay/marsh	Newport Bay, upper	Core name format: SitecodeYear-Core#	104	104	Plant, terrestrial	UCIAMS-148363	2620	80		2435	2734	2924	calib 8.10 IntCal20	Thorn 2014	29652
ORA		418404	3723918	6	Coastal bay/marsh	Newport Bay, upper	Core name format: SitecodeYear-Core#	65	65	Shell-m, marine	UCIAMS-148373	195	20		0	10	60	calib 8.10 Marine20; 70±65	Thorn 2014	29653
ORA		418404	3723918	6	Coastal bay/marsh	Newport Bay, upper	Core name format: SitecodeYear-Core#	103	103	Shell-m, marine	UCIAMS-148374	700	20		1	133	261	calib 8.10 Marine20; 70±65	Thorn 2014	29654
ORA		418404	3723918	6	Coastal bay/marsh	Newport Bay, upper	Core name format: SitecodeYear-Core#	138	138	Shell-m, marine	UCIAMS-148375	730	20		1	139	264	calib 8.10 Marine20; 70±65	Thorn 2014	29655
ORA		418404	3723918	6	Coastal bay/marsh	Newport Bay, upper	Core name format: SitecodeYear-Core#	108	108	Shell-m, marine	UCIAMS-148376	615	20		1	115	257	calib 8.10 Marine20; 70±65	Thorn 2014	29656
ORA		405456	3728163	0	Coastal bay/marsh	Newport Fault	B-1, #3, Unit 4	-1402	-1402	Wood	Beta-042278	9330	100		10244	10530	11057	calib 8.10 IntCal20		26064
ORA		405456	3728163	0	Coastal bay/marsh	Newport Fault	B-2, #2, Unit 4	-1570	-1570	Wood	Beta-042280	8530	200		9027	9537	10151	calib 8.10 IntCal20		26063
ORA		405456	3728163	0	Coastal bay/marsh	Newport Fault	B-3, #1, Unit 9/10 contact	-939	-939	Wood	Beta-042281	7050	80		7705	7871	8009	calib 8.10 IntCal20		26051
ORA		405456	3728163	0	Coastal bay/marsh	Newport Fault	B-3, #4, Unit 1/2 contact	-1716	-1716	Wood	Beta-042282	9510	70		10581	10832	11100	calib 8.10 IntCal20		26066
ORA		405456	3728163	0	Coastal bay/marsh	Newport Fault	B-3, #5, Unit B	-1823	-1823	Wood	Beta-042283	10100	150		11235	11686	12448	calib 8.10 IntCal20		26067
ORA		405456	3728163	0	Coastal bay/marsh	Newport Fault	B-4, #3, Unit 3 or 4	-1597	-1597	Wood	Beta-042285	9390	230		9962	10661	11258	calib 8.10 IntCal20		26065
ORA		405456	3728163	0	Coastal bay/marsh	Newport Fault	B-4, #4, Unit P	-2339	-2339	Wood	Beta-042286	30700	-				N/A - inexact age		26202	
ORA		405456	3728163	0	Coastal bay/marsh	Newport Fault	B-9, #2, Unit 11 or 12?	-684	-684	Shell-m, marine assumed	Beta-043458	5360	80		5195	5461	5734	calib 8.10 Marine20; 70±65		26055
ORA		405456	3728163	0	Coastal bay/marsh	Newport Fault	B-9, #1, Unit 14?	-439	-439	Shell-m, marine assumed	Beta-043459	4459	130		3952	4344	4776	calib 8.10 Marine20; 70±65		26053

Appendix D-3: Geological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
ORA		416747	3720018	5	Coastal bay/marsh	San Joaquin Marsh, Newport Bay	Freshwater pollen, microfossils	126	127	Peat, freshwater	Beta-030232	390	80		159	424	545	calib 8.10 IntCal20		26046
ORA		416747	3720018	5	Coastal bay/marsh	San Joaquin Marsh, Newport Bay	Saltwater pollen, microfossils	-30	-30	Peat, saltwater	Beta-030233	2010	70		1746	1948	2122	calib 8.10 IntCal20		26043
ORA		416747	3720018	5	Coastal bay/marsh	San Joaquin Marsh, Newport Bay	Freshwater pollen, microfossils	307	307	Peat, freshwater	Beta-030234	4710	100		5054	5433	5652	calib 8.10 IntCal20		26047
ORA		416747	3720018	5	Coastal bay/marsh	San Joaquin Marsh, Newport Bay	Freshwater pollen, microfossils	91	253	Peat, freshwater	Beta-030235	5140	100		5609	5888	6181	calib 8.10 IntCal20		26048
ORA		416747	3720018	5	Coastal bay/marsh	San Joaquin Marsh, Newport Bay	Freshwater pollen, microfossils	176	366	Peat, freshwater	Beta-030236	6070	200		6455	6933	7420	calib 8.10 IntCal20		26049
ORA		416747	3720018	5	Coastal bay/marsh	San Joaquin Marsh, Newport Bay	assumed by current author, based on species	160	160	Shell-m, Cerithidea californica	CAMS-024571	840	60		4	226	417	calib 8.10 Marine20; 70±65		26042
ORA		411567	3725605	3	Marsh, inland	Santa Ana, LeBard Park	Peat from 3 mi E of Huntington Beach, NE 1/4 NE 1/4 sec. 6, T 6 S, R 10 W in flat-bedded fine-grained sediments of Recent age. Coll. 1962 by Gilbert Torres and K. H. Wiebe; subm. by J. F. Poland. Comment (J.F.P.); Recent deposits 50-80 ft thick laid d	1082	1112	Peat, freshwater	W-1406	8140	300		8348	9050	9738	calib 8.10 IntCal20	Levin, B. 1965	6673
ORA		411567	3725605	3	Marsh, inland	Santa Ana, LeBard Park	Peat from 3 mi E of Huntington Beach, NE 1/4 NE 1/4 sec. 6, T 6 S, R 10 W in flat-bedded fine-grained sediments of Recent age. Coll. 1962 by Gilbert Torres and K. H. Wiebe; subm. by J. F. Poland. Comment (J.F.P.); Recent deposits 50-80 ft thick laid d	1204	1230	Peat, freshwater	W-1407	8030	300		8207	8923	9545	calib 8.10 IntCal20	Levin, B. 1965	6674
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core 02VC	268.5	268.5	Charcoal	UCIAMS-128881	1775	20		1610	1654	1716	calib 8.10 IntCal20	Leeper, Robert 2017	29606
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core 14PC	210	210	Plant, terrestrial	UCIAMS-128882	1745	20		1572	1637	1705	calib 8.10 IntCal20	Leeper, Robert 2017	29607
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core 14PC	277.5	277.5	Plant, terrestrial	UCIAMS-128883	2140	35		1999	2116	2300	calib 8.10 IntCal20	Leeper, Robert 2017	29608
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core 14PC	333.5	333.5	Plant, terrestrial	UCIAMS-128884	2490	15		2493	2581	2715	calib 8.10 IntCal20	Leeper, Robert 2017	29609
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core 02VC	394.5	394.5	Shell-m, marine	UCIAMS-128899	3755	15		3020	3205	3370	calib 8.10 Marine20; 70±65	Leeper, Robert 2017	29610
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core 02VC	396.5	396.5	Shell-m, marine	UCIAMS-128900	3864	15		3157	3332	3488	calib 8.10 Marine20; 70±65	Leeper, Robert 2017	29611
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core 02VC	396.5	396.5	Shell-m, marine	UCIAMS-128901	3435	15		2671	2808	2979	calib 8.10 Marine20; 70±65	Leeper, Robert 2017	29612
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core 02VC	404.5	404.5	Shell-m, marine	UCIAMS-128902	3580	15		2795	2978	3160	calib 8.10 Marine20; 70±65	Leeper, Robert 2017	29613
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core 02VC	190	190	Charcoal	UCIAMS-134843	2295	20		2182	2334	2350	calib 8.10 IntCal20	Leeper, Robert 2017	29614
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core name format: SitecodeYear-Core#	60	60	Plant, terrestrial	UCIAMS-138999	335	20		314	384	463	calib 8.10 IntCal20	Thorn 2014	29623
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core name format: SitecodeYear-Core#	107	107	Plant, terrestrial	UCIAMS-139000	640	60		539	607	675	calib 8.10 IntCal20	Thorn 2014	29624
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core name format: SitecodeYear-Core#	59	59	Plant, terrestrial	UCIAMS-139001	375	20		326	452	496	calib 8.10 IntCal20	Thorn 2014	29625
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core name format: SitecodeYear-Core#	120	120	Plant, terrestrial	UCIAMS-139002	1080	25		928	981	1057	calib 8.10 IntCal20	Thorn 2014	29626
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core name format: SitecodeYear-Core#	130	130	Plant, terrestrial	UCIAMS-139003	255	20		154	300	422	calib 8.10 IntCal20	Thorn 2014	29627
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core name format: SitecodeYear-Core#	273	273	Plant, terrestrial	UCIAMS-139004	2010	25		1846	1949	2000	calib 8.10 IntCal20	Thorn 2014	29628
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core 02VC	125.5	125.5	Plant, terrestrial	UCIAMS-145780	1395	35		1193	1308	1357	calib 8.10 IntCal20	Leeper, Robert 2017	29630
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core 02VC	230.5	230.5	Charcoal	UCIAMS-145781	1695	25		1534	1582	1692	calib 8.10 IntCal20	Leeper, Robert 2017	29631
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core 02VC	248.5	248.5	Plant, terrestrial	UCIAMS-145782	1795	20		1622	1661	1734	calib 8.10 IntCal20	Leeper, Robert 2017	29632
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core 02VC	375.5	375.5	Plant, terrestrial	UCIAMS-145783	3025	25		3084	3226	3340	calib 8.10 IntCal20	Leeper, Robert 2017	29633
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core 02VC	39.5	39.5	Plant, terrestrial	UCIAMS-148130	375	20		326	452	496	calib 8.10 IntCal20	Leeper, Robert 2017	29634
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core 02VC	49.5	49.5	Charcoal	UCIAMS-148131	1260	60		1058	1190	1297	calib 8.10 IntCal20	Leeper, Robert 2017	29635

Appendix D-3: Geological Radiocarbon Dates Compiled from Study Area

County	Site Trinomial	UTM East (Zone 11)	UTM North (Zone 11)	Elevation (m)	Landform Type	General Provenience	Detailed Provenience	Top Depth (cm)	Bottom Depth (cm)	Sample Description	Lab Number	Conventional 14C Age (BP)	14C Error	Delta 13C	Minimum 2-Sigma Endpoint (cal BP)	Median Probability (cal BP)	Maximum 2-Sigma Endpoint (cal BP)	Calibration Method	Citations	FW Carbon ID
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core 02VC	59.5	59.5	Plant, terrestrial	UCIAMS-148132	615	25		551	603	650	calib 8.10 IntCal20	Leeper, Robert 2017	29636
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core 02VC	69.5	69.5	Plant, terrestrial	UCIAMS-148133	960	60		735	853	956	calib 8.10 IntCal20	Leeper, Robert 2017	29637
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core 02VC	79.5	79.5	Plant, terrestrial	UCIAMS-148134	1000	30		797	913	957	calib 8.10 IntCal20	Leeper, Robert 2017	29638
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core 02VC	99.5	99.5	Plant, terrestrial	UCIAMS-148135	850	30		684	748	896	calib 8.10 IntCal20	Leeper, Robert 2017	29639
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core 02VC	104.5	104.5	Plant, terrestrial	UCIAMS-148136	2595	50		2494	2728	2844	calib 8.10 IntCal20	Leeper, Robert 2017	29640
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core 02VC	111.5	111.5	Plant, terrestrial	UCIAMS-148137	2350	50		2160	2391	2695	calib 8.10 IntCal20	Leeper, Robert 2017	29641
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core 02VC	139.5	139.5	Plant, terrestrial	UCIAMS-148138	985	30		793	863	956	calib 8.10 IntCal20	Leeper, Robert 2017	29642
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core 02VC	220.5	220.5	Plant, terrestrial	UCIAMS-148139	2480	170		2118	2543	2939	calib 8.10 IntCal20	Leeper, Robert 2017	29643
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core 02VC	325.5	325.5	Plant, terrestrial	UCIAMS-148140	1045	25		917	945	1050	calib 8.10 IntCal20	Leeper, Robert 2017	29644
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core 18VC	171.5	171.5	Plant, terrestrial	UCIAMS-148141	2790	20		2803	2894	2957	calib 8.10 IntCal20	Leeper, Robert 2017	29645
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core 18VC	200.5	200.5	Plant, terrestrial	UCIAMS-148142	410	20		339	488	510	calib 8.10 IntCal20	Leeper, Robert 2017	29646
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core 18VC	257.5	257.5	Plant, terrestrial	UCIAMS-148143	2150	20		2007	2135	2298	calib 8.10 IntCal20	Leeper, Robert 2017	29647
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core 18VC	262.5	262.5	Plant, terrestrial	UCIAMS-148144	2080	20		1951	2039	2113	calib 8.10 IntCal20	Leeper, Robert 2017	29648
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core 18VC	262.5	262.5	Charcoal	UCIAMS-148145	2190	60		2006	2199	2337	calib 8.10 IntCal20	Leeper, Robert 2017	29649
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core 18VC	288.5	288.5	Plant, terrestrial	UCIAMS-148146	3170	110		3075	3379	3682	calib 8.10 IntCal20	Leeper, Robert 2017	29650
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core name format: SitecodeYear-Core#	294	294	Plant, terrestrial	UCIAMS-148362	2395	20		2349	2404	2489	calib 8.10 IntCal20	Thorn 2014	29651
ORA		399616	3733723	2	Coastal bay/marsh	Seal Beach Marsh	Core 19VC	28.5	28.5	Plant, terrestrial	UCIAMS-168307	240	20		1	291	313	calib 8.10 IntCal20	Leeper, Robert 2017	29657
ORA	CA-ORA-0322/1118	399231	3734667	7	Terrace, coastal	Seal Beach Naval	IRP Site 73, Concentration III, Feature 1, Stratum IIb (rejected as intrusive)	10	30	Charcoal, seeds	Beta-178092	230	40	-22.8	1	209	428	calib 8.10 IntCal20	Chatters, James Carl 2003	32857

APPENDIX E

LIST OF TRIBAL NATIONS AND TRIBES PROVIDED BY CALTRANS DISTRICT 7

Appendix E. List of Tribal Nations and Tribes provided by Caltrans District 7

Tribe	Name	Status	Contact	Response
Cahuilla	Santa Rosa Band of Cahuilla Indians	Tribal Nation	Lovina Redner, Tribal Chair P.O. Box 391820 Anza, CA, 92539 Phone: (951) 659 - 2700 Fax: (951) 659-2228 lsaul@santarosa-nsn.gov	No response
Cahuilla Luiseno	Soboba Band of Luiseno Indians	Tribal Nation	Isaiah Vivanco, Chairperson P. O. Box 487 San Jacinto, CA, 92581 Phone: (951) 654 - 5544 Fax: (951) 654-4198 ivivanco@soboba-nsn.gov	Study Area outside the Tribe's Ancestral Territory
			Joseph Ontiveros, Cultural Resource Department P.O. BOX 487 San Jacinto, CA, 92581 Phone: (951) 663 - 5279 Fax: (951) 654-4198 jontiveros@soboba-nsn.gov	
Cahuilla Serrano	Morongo Band of Mission Indians	Tribal Nation	Robert Martin, Chairperson 12700 Pumarra Road Banning, CA, 92220 Phone: (951) 755 - 5110 Fax: (951) 755-5177 abrierty@morongo-nsn.gov	Study Area outside the Tribe's Ancestral Territory
			Ann Brierty, THPO 12700 Pumarra Road Banning, CA, 92220 Phone: (951) 755 - 5259 Fax: (951) 572-6004 abrierty@morongo-nsn.gov	
Chumash	Barbareno/ Ventureno Band of Mission Indians	Tribe	Patrick Tumamait, 992 El Camino Corto Ojai, CA, 93023 Phone: (805) 216 - 1253 natchumash@yahoo.com	Participated in the Study
			Julie Tumamait-Stenslie, Chairperson 365 North Poli Ave Ojai, CA, 93023 Phone: (805) 646 - 6214 jtumamait@hotmail.com	
			Brenda Guzman, 58 N. Ann Street, #8 Ventura, CA, 93001 Phone: (209) 601 - 4676 brendamguzman@gmail.com	

Appendix E. List of Tribal Nations and Tribes provided by Caltrans District 7

Tribe	Name	Status	Contact	Response
			Annette Ayala, 188 S. Santa Rosa Street Ventura, CA, 93001 Phone: (805) 515 - 9844 annetteayala78@yahoo.com	
Chumash	Chumash Council of Bakersfield	Tribe	Julio Quair, Chairperson 729 Texas Street Bakersfield, CA, 93307 Phone: (661) 322 - 0121 chumashtribe@sbcglobal.net	No response
Chumash	Coastal Band of the Chumash Nation	Tribe	Mia Lopez, Chairperson P. O. Box 4464 Santa Barbara, CA, 93140 Phone: (805) 665 - 0486 cbcntribalchair@gmail.com	No response
Chumash	Northern Chumash Tribal Council	Tribe	Violet Walker, Chairperson P.O. Box 6533 Los Osos, CA, 93412 Phone: (760) 549 - 3532 violetsagewalker@gmail.com	Study Area outside the Tribe's Ancestral Territory
Chumash	San Luis Obispo County Chumash Council	Tribe	Mark Vigil, Chief 1030 Ritchie Road Grover Beach, CA, 93433 Phone: (805) 481 - 2461 Fax: (805) 474-4729	No response
Chumash	Santa Ynez Band of Chumash Indians	Tribal Nation	Sam Cohen, Nakia Zavalla; Wendy Teeter, Alison McAdams; P.O. Box 517 Santa Ynez, CA 93460	Participated in the Study
Cupeno Luiseno	Pala Band of Mission Indians	Tribal Nation	Shasta Gaughen, Tribal Historic Preservation Officer PMB 50, 35008 Pala Temecula Rd. Pala, CA, 92059 Phone: (760) 891 - 3515 Fax: (760) 742-3189 sgaughen@palatribe.com	Study Area outside the Tribe's Ancestral Territory
Gabrielino	Gabrielino Band of Mission Indians - Kizh Nation	Tribe	Andrew Salas, Chairperson P.O. Box 393 Covina, CA, 91723 Phone: (626) 926 - 4131 admin@gabrielenoindians.org	Participated in the Study
Gabrielino	Gabrielino/Tongva San Gabriel Band of Mission Indians	Tribe	Anthony Morales, Chairperson P.O. Box 693 San Gabriel, CA, 91778 Phone: (626) 483 - 3564 Fax: (626) 286-1262 GTTribalcouncil@aol.com	Participated in the Study

Appendix E. List of Tribal Nations and Tribes provided by Caltrans District 7

Tribe	Name	Status	Contact	Response
Gabrielino	Gabrielino Tongva Indians of California Tribal Council	Tribe	Robert Dorame, Chairperson P.O. Box 490 Bellflower, CA, 90707 Phone: (562) 761 - 6417 Fax: (562) 761-6417 gtongva@gmail.com	Participated in the Study
			Christina Conley, Tribal Consultant and Administrator P.O. Box 941078 Simi Valley, CA, 93094 Phone: (626) 407 - 8761 christina.marsden@alumni.usc.edu	
Gabrielino	Gabrielino-Tongva Tribe	Tribe	Charles Alvarez, 23454 Vanowen Street West Hills, CA, 91307 Phone: (310) 403 - 6048 roadkingcharles@aol.com	No response
Gabrielino	Gabrielino /Tongva Nation	Tribe	Sandonne Goad, Chairperson 106 1/2 Judge John Aiso St., #231 Los Angeles, CA, 90012 Phone: (951) 807 - 0479 sgoad@gabrielino-tongva.com	No response
Juaneño	Juaneño Band of Mission Indians	Tribe	Sonia Johnston, Chairperson P.O. Box 25628 Santa Ana, CA, 92799 sonia.johnston@sbcglobal.net	No response
Juaneño	Juaneño Band of Mission Indians Acjachemen Nation - Belardes	Tribe	Matias Belardes Chairperson 32161 Avenida Los Amigos San Juan Capistrano, CA, 92675 Phone: (949) 293 - 8522 kaamalam@gmail.com	Participated in the Study
			Joyce Perry, Tribal Manager 4955 Paseo Segovia Irvine, CA, 92603 Phone: (949) 293 - 8522 kaamalam@gmail.com	
Juaneño	Juaneño Band of Mission Indians Acjachemen Nation	Tribe	Heidi Lucero, Chairperson 31411-A La Matanza Street San Juan Capistrano, CA, 92675 Phone: (562) 879 - 2884 hllucero105@gmail.com	No response
Kitanemuk, Vanyume, Tataviam	San Fernando Band of Mission Indians	Tribe	Donna Yocum, Chairperson P.O. Box 221838 Newhall, CA, 91322 Phone: (503) 539 - 0933 Fax: (503) 574-3308 ddyocum@comcast.net	No response
Luißeño	La Jolla Band of Luißeño Indians	Tribal Nation	Norma Contreras, Chairperson 22000 Highway 76 Pauma Valley, CA, 92061 Phone: (760) 742 - 3771	No response

Appendix E. List of Tribal Nations and Tribes provided by Caltrans District 7

Tribe	Name	Status	Contact	Response
Luiŋeño	Pauma Band of Luiŋeño Indians	Tribal Nation	Temet Aguilar, Chairperson P.O. Box 369 Pauma Valley, CA, 92061 Phone: (760) 742 - 1289 Fax: (760) 742-3422 bennaecalac@aol.com	No response
Luiŋeño	Pechanga Band of Indians	Tribal Nation	Mark Macarro, Chairperson P.O. Box 1477 Temecula, CA, 92593 Phone: (951) 770 - 6000 Fax: (951) 695-1778 epreston@pechanga-nsn.gov	Study Area outside the Tribe's Ancestral Territory
Luiŋeño	Rincon Band of Luiŋeño Indians	Tribal Nation	Bo Mazzetti, Chairperson One Government Center Lane Valley Center, CA, 92082 Phone: (760) 749 - 1051 Fax: (760) 749-5144 bomazzetti@aol.com Cheryl Madrigal, Tribal Historic Preservation Officer One Government Center Lane Valley Center, CA, 92082 Phone: (760) 297 - 2635 crd@rincon-nsn.gov	Study Area outside the Tribe's Ancestral Territory
Quechan	Quechan Tribe of the Fort Yuma Reservation	Tribal Nation	Manfred Scott, Acting Chairman Kw'ts'an Cultural Committee P.O. Box 1899 Yuma, AZ, 85366 Phone: (928) 750 - 2516 scottmanfred@yahoo.com Jill McCormick, Historic Preservation Officer P.O. Box 1899 Yuma, AZ, 85366 Phone: (760) 572 - 2423 historicpreservation@quechantribe.com	Study Area outside the Tribe's Ancestral Territory
Serrano	San Manuel Band of Mission Indians	Tribal Nation	Jessica Mauck, Director of Cultural Resources 26569 Community Center Drive Highland, CA, 92346 Phone: (909) 864 - 8933 Jessica.Mauck@SanManuel-NSN.Gov	Study Area outside the Tribe's Ancestral Territory
Serrano	Serrano Nation of Mission Indians	Tribe	Mark Cochrane, Co-Chairperson P. O. Box 343 Patton, CA, 92369 Phone: (909) 528 - 9032 serranonation1@gmail.com Wayne Walker, Co-Chairperson P. O. Box 343 Patton, CA, 92369 Phone: (253) 370 - 0167 serranonation1@gmail.com	No response

Appendix E. List of Tribal Nations and Tribes provided by Caltrans District 7

Tribe	Name	Status	Contact	Response
Tataviam	Fernandeno Tataviam Band of Mission Indians	Tribe	Jairo Avila, Tribal Historic and Cultural Preservation Officer 1019 Second Street, Suite 1 San Fernando, CA, 91340 Phone: (818) 837 - 0794 Fax: (818) 837-0796 jairo.avila@tataviam-nsn.us	Interested but do not have capacity to participate

APPENDIX F

EXAMPLE OF OUTREACH LETTER SENT TO THE TRIBAL NATIONS AND TRIBES

California Department of Transportation

DISTRICT 7, DIVISION OF ENVIRONMENTAL PLANNING
100 S. MAIN STREET, SUITE 100, MS-16A | LOS ANGELES, CA 90012
(213) 897-9016 | FAX (213) 897-0685 TTY 711
www.dot.ca.gov



February 2, 2022

Address

Dear Name:

The California Department of Transportation (Caltrans) is developing the **Los Angeles Basin Archaeological Context and Research Design** to guide Caltrans' cultural resources investigations in the Greater Los Angeles Area (see enclosed map of study area). Specifically, the proposed study will provide a regional summary context, research design, and protocols for the identification, evaluation, and treatment of archaeological and tribal cultural resources that may be affected by transportation projects in the region.

An important part of this study is the identification of Tribal cultural resources within the study area so that Caltrans may ensure their consideration during transportation project development. The results of the Native American Heritage Commission's (NAHC) Sacred Lands File search were positive, and the NAHC identified your Tribe as possibly having knowledge of cultural resources in the study area. Your help in identifying the area's Tribal cultural resources is important so that they may be protected to the maximum extent feasible during future transportation projects in the region.

Reddy Anthropology Consulting, Inc. has been tasked by Caltrans to coordinate the Native American consultation efforts for the Los Angeles Basin Archaeological Context and Research Design. If you know of any Tribal cultural resources that may be located in the study area, or if you would like additional information about the study, please do not hesitate to contact the project's ethnographer **Seetha N. Reddy, PhD**, at reddyanthropology@gmail.com or (530) 902-3818. If you wish, you may also contact me by email at mariam.dahdul@dot.ca.gov or by phone at (213) 266-6891.

Thank you in advance for your time and involvement in our consultation efforts.

Sincerely,

Mariam Dahdul
Associate Environmental Planner (Archaeology)

Enclosure
Study Area Map

APPENDIX G

TRIBAL CONSULTATION COMMUNICATION LOG

Appendix G:
Tribal Consultation Communication Log For LA Basin Research Design

Tribe (alphabetical)	Name¹	Participation
Cahuilla	Santa Rosa Band of Cahuilla Indians	No response
Cahuilla Luiseño	Soboba Band of Luiseño Indians	Study Area outside the Tribe's Ancestral Territory
Cahuilla Serrano	Morongo Band of Mission Indians	Study Area outside the Tribe's Ancestral Territory
Chumash	Barbareño/Ventureño Band of Mission Indians	Participated
	Chumash Council of Bakersfield	No response
	Coastal Band of the Chumash Nation	No response
	Northern Chumash Tribal Council	Study Area outside the Tribe's Ancestral Territory
	San Luis Obispo County Chumash Council	No response
	Santa Ynez Band of Chumash Indians	Participated
Cupeno Luiseño	Pala Band of Mission Indians	Study Area outside the Tribe's Ancestral Territory
Gabrieleño/Tongva	Gabrieleño Band of Mission Indians - Kizh Nation	Participated
	Gabrieleno (Tongva) Band of Mission Indians (San Gabriel Band of Mission Indians)	Participated
	Gabrielino Tongva Indians of California Tribal Council	Participated
	Gabrielino-Tongva Indian Tribe	No response
	Gabrielino/Tongva Nation	No response
Juaneño	Juaneño Band of Mission Indians	No response
	Juaneño Band of Mission Indians Acjachemen Nation	No response
	Juaneño Band of Mission Indians Acjachemen Nation - Belardes	Participated
Kitanemuk, Vanyume, Tataviam	San Fernando Band of Mission Indians	No response
Luiseño	La Jolla Band of Luiseño Indians	No response
	Pauma Band of Luiseño Indians	No response
	Pechanga Band of Indians	Study Area outside the Tribe's Ancestral Territory
	Rincon Band of Luiseño Indians	Study Area outside the Tribe's Ancestral Territory
Quechan	Fort Yuman Quechan Indian Tribe	No comments; defer to local Tribes
Serrano	San Manuel Band of Mission Indians	Study Area outside the Tribe's Ancestral Territory
	Serrano Nation of Mission Indians	No response
Tataviam	Fernandeño Tataviam Band of Mission Indians	Lack of staff capacity

¹The different spellings are intentional and reflect how each Tribe names itself.

Cahuilla
Santa Rosa Band of Cahuilla Indians

Lovina Redner, Tribal Chair
P.O. Box 391820
Anza, CA, 92539
Phone: (951) 659-2700
Fax: (951) 659-2228 lsaul@santarosa-nsn.gov

Outreach

Date	Communication
Feb 2, 2022:	Email sent regarding the LA Basin Study and request participation
March 16, 2022:	Sent second email
April 22, 2022:	Sent 3rd email; left voice message on the Tribal receptionists voice mail.

No further outreach was done after consultation with CT D7 Tribal Liaison Ms. Mariam Dahdul

**Cahuilla Luiseño
Soboba Band of Luiseño Indians**

**Joseph Ontiveros, Cultural
Resource Department
P.O. BOX 487
San Jacinto, CA, 92581
Phone: (951) 663-5279
Fax: (951) 654-4198 jontiveros@soboba-nsn.gov**

Outreach

Date	Communication
Feb 2, 2022	Email sent regarding the LA Basin Study and request participation
March 2, 2022	Spoke to Mr. Ontiveros, who relayed that the Project is outside the Tribe's territory, and he deferred to Chairman Morales of the Gabrieleno/Tongva San Gabriel Band of Mission Indians.

No further outreach was done after consultation with CT D7 Tribal Liaison Ms. Mariam Dahdul

**Cahuilla Serrano
Morongo Band of Mission Indians**

Robert Martin, Chairperson
12700 Pumarra Road
Banning, CA, 92220
Phone: (951) 755-5110
Fax: (951) 755-5177 abrierty@morongo-nsn.gov

Ann Brierty, THPO
12700 Pumarra Road
Banning, CA, 92220
Phone: (951) 755-5259
Fax: (951) 572-6004 abrierty@morongo-nsn.gov

Outreach

Date	Communication
Feb 2, 2022	Email sent regarding the LA Basin Study and request participation. Tribe responded that the Project area is not in their territory

No further outreach was done after consultation with CT D7 Tribal Liaison Ms. Mariam Dahdul

**Chumash
Barbareño/Ventureño Band of Mission Indians**

Dana Barrios, Chairperson

Patrick Tumamait, Vice Chair
992 El Camino Corto
Ojai, CA, 93023
Phone: (805) 216-1253 natchumash@yahoo.com

Brenda Guzman,
58 N. Ann Street, #8
Ventura, CA, 93001
Phone: (209) 601-4676 brendamguzman@gmail.com

Annette Ayala,
188 S. Santa Rosa Street
Ventura, CA, 93001
Phone: (805) 515-9844 annetteayala78@yahoo.com

Outreach

Date	Communication
Feb 2, 2022	Email sent regarding the LA Basin Study and request participation. Tribe responded that the Project area is not in their territory therefore will not be commenting.
March 31, 2022	CTD7 Mariam D. said she will contact Julie Tumamait-Stenslie and ask if we can talk to Patrick Tumamait.
May 31, 2022	Mariam spoke to Patrick T. and he is interested in study
June 1, 2022	SR emailed Patrick T. asking for a meeting over call
June 2, 2022	Patrick T. asked SR to call on his cell (805) 216-1253. SR left a voice message and also emailed him. https://ojaiherbal.org/speaker/patrick-tumamait/
June 3, 2022	SR Spoke to Patrick T. - covers LA, Ventura and SB County area; Borders and trade routes are highways - before this information is lost it is good to get the information out. Would like to work with other neighboring Tribes too on this. Patrick shared that to work with the City of Santa Barbara, need to show ancestry to within the City boundaries - not enough to be in the County. This is very inappropriate . SR sent the themes and questions, and Patrick will try get back June 9; else SR will remind him on June 27.
June 19, 2022	Patrick T. submitted written responses to the questions.
June 22, 2022	Patrick T. participated in a virtual interview with ethnographer, CTD7 Mariam, and Andrew Salas
August 2, 2022	Patrick T. signed a confidentiality agreement for the Project
August 4, 2022	Patrick participated in a virtual interview and discussion with ethnographer

No further outreach was done after consultation with CT D7 Tribal Liaison Ms. Mariam Dahdul

**Chumash
Chumash Council of Bakersfield**

Julio Quair, Chairperson
729 Texas Street
Bakersfield, CA, 93307
Phone: (661) 322-0121 chumashtribe@sbcglobal.net

Outreach

Date	Communication
Feb 2, 2022	Email sent regarding the LA Basin Study and request participation. email bounced back so sent hard copy through USPS.
March 21, 2022	Called but no response and could not leave message

No further outreach was done after consultation with CT D7 Tribal Liaison Ms. Mariam Dahdul

**Chumash
Coastal Band of the Chumash Nation**

**Tribal Chairperson Mia Lopez
P. O. Box 4464
Santa Barbara, CA, 93140
Phone: 805-324-0135
805-324-0135 (office)
cbcentribalchair@gmail.com
(Mariza Sullivan, Chairperson Former)**

NAHC listed Mariza Sullivan as the chairperson; however during outreach found out that the new Chairperson is Mia Lopez

Outreach

Date	Communication
Feb 2, 2022	Email sent regarding the LA Basin Study and request participation.
March 16, 2022	2nd email sent
April 22, 2022	3rd email sent; left voice mail for Mariza Sullivan and her voice message said that Mia Lopez is the new Tribal Chair. So the 3rd email was sent to Ms. Lopez.
April 25, 2022	Left a voice message for Ms. Lopez. Ms. Sullivan returned call, and asked if SR can send the letter and questions to her - marizasullivan@gmail.com
April 28, 2022	Called Chairperson Lopez and she asked me to call back tomorrow at 9am.
April 29, 2022	Called Chairperson Lopez at 9am but no response to call.
May 12, 2022	SR Left voice message again

No further outreach was done after consultation with CT D7 Tribal Liaison Ms. Mariam Dahdul

**Chumash
Northern Chumash Tribal Council**

Violet Walker, Chairperson
P.O. Box 6533
Los Osos, CA, 93412
Phone: (760) 549-3532 violetsagewalker@gmail.com

Outreach

Date	Communication
Feb 2, 2022	Email sent regarding the LA Basin Study and request participation. Tribe acknowledged receipt of the email.
March 16, 2022	2nd email sent
March 17, 2022	Chairperson Walker responded that Project is not in their area so deferring to other Tribes

No further outreach was done after consultation with CT D7 Tribal Liaison Ms. Mariam Dahdul

Chumash
San Luis Obispo County Chumash Council

Mark Vigil, Chief
1030 Ritchie Road
Grover Beach, CA, 93433
Phone: (805) 481-2461
Fax: (805) 474-4729

Outreach

Date	Communication
Feb 2, 2022	Hard copy letter sent regarding the LA Basin Study and request participation.
March 5, 2022	Letter was returned undeliverable
March 21, 2022	Tried calling but the number is no longer working

No further outreach was done after consultation with CT D7 Tribal Liaison Ms. Mariam Dahdul

**Chumash
Santa Ynez Band of Chumash Indians**

**Sam Cohen, Nakia Zavalla; Wendy Teeter, Alison McAdams;
P.O. Box 517
Santa Ynez, CA 93460**

Outreach

Date	Communication
Feb 2, 2022	Email sent regarding the LA Basin Study and request participation.
March 16, 2022	2nd Email sent
March 17, 2022	Mr. Cohen asked for a map of the Study Area. SR re-sent the consultation letter, and explained that “The Study Area is focused on Caltrans Highways within the LA Basin, and at the request of Caltrans, the Study is focused on the major drainage basins of the greater LA Basin.” Mr. Cohen responded that the Tribe has interests in the northwestern part of the Study Area, specifically Santa Susana Field Lab at 5800 Woolsey Canyon Road. SR responded and asked if the Tribe would like to arrange a meeting to discuss the project.
March 30, 2022	Met with Sam Cohen, Alison McAdams, Kelsie Shroll on zoom (w/ Mariam D.). Discussed the project; Sam sent additional information. The Tribe has used Kroeber’s map of Tribal territories; and for Chumash that extends from Los Robles to Malibu. The Chumash were hunter/gatherers and moved around; so, the Tribe consults in the western LA Basin too. Sam Cohen is involved with the Santa Susana Field Lab. Burro Flats painted caves on NASA portion of Santa Susana Field Lab property was an area where different Tribes came together to interact for ceremonial activities. The Burro Flats is listed on the NRHP but only a small part; recently NASA identified 10-20 additional caves. The 2800 acres is a cultural district; asked SHPO to list it as a cultural district The Tribe has also recently been involved in how wildlife corridors are part of Tribal resources. Towards this, the Tribe is working with the Wishtoyo Chumash Foundation (https://www.wishtoyo.org/) and Santa Clara River Fund to define these corridors. Some of the corridors cross Santa Susana to the Liberty Canyon Corridor Project area on Hwy 101 (https://smmc.ca.gov/liberty-canyon-wildlife-corridor/). https://storymaps.arcgis.com/stories/238cf48c276a4762813de5f6e53f4344 Mountain Lions are important to the Tribe and to the Chumash; and wildlife corridor studies also focus on the conservation efforts of this animal as a cultural resource. Wildlife corridors are part of cultural landscape. The Tribe is also working toward ocean -marine areas as sanctuaries mostly in Santa Barbara channel but will also go south. CT wants to partner with Tribes; and this is an opportunity to collaborate with Tribes to address Tribal heritage and questions. For example, collaborate about re-

	vegetation as part of mitigation or not to improve natural landscape; if there are locations in the Study area that Tribe thinks will be an opportunity to partner to conserve plants and vegetation. The Tribe was selected for CT Beautification Grant; CT is partnering with landscaping on Hwy 246. Clean California Local Grant Projects Caltrans (see below) Also, incorporating meaningful Native artwork and collaborating with local NA artists – as part of mitigation and or the consultation process. The Tribe has such artwork in West Hills and other places. Sam Cohen provided SR documents on wildlife corridors, NRHP mon. documentation for the Burra Flats and Santa Susanna Field lab; listing of plants and animals important to the Chumash that was developed for Santa Susana Field Lab. SR will review and circle back with questions and potential research themes in late April or early May.
April 25, 2022	SR Sent the questions; and no further information was shared by the Tribe.

No further outreach was done after consultation with CT D7 Tribal Liaison Ms. Mariam Dahdul

**Cupeno Luiseño
Pala Band of Mission Indians**

Shasta Gaughen, Tribal Historic Preservation Officer
PMB 50, 35008 Pala Temecula Rd.
Pala, CA, 92059
Phone: (760) 891-3515
Fax: (760) 742-3189 sgaughen@palatribe.com

Outreach

Date	Communication
Feb 2, 2022	Email sent regarding the LA Basin Study and request participation. Tribe responded that the Study Area outside the Tribe's Ancestral Territory

No further outreach was done after consultation with CT D7 Tribal Liaison Ms. Mariam Dahdul

**Gabrieleño/Tongva
Gabrieleño Band of Mission Indians - Kizh Nation**

**Andrew Salas, Chairperson P.O. Box 393
Covina, CA, 91723
Phone: (626) 926-4131
admin@gabrielenoindians.org**

Outreach

Date	Communication
Feb 2, 2022	Email sent regarding the LA Basin Study and request participation.
March 16, 2022	2nd email sent
March 17, 2022	Email from Brandy Salas that she is trying to find a time to set a meeting - Chairman Salas is booked till May. Set meeting for May 24, 2022 at 1pm.
May 2022	Meeting changed to May 24 at 11am
May 24, 2022	Met over zoom with Matt Teutimez and Chairperson Andrew Salas. They were in the field so just spoke for 40 mins. The Tribe will participate in the Project. Matt spoke of imp. of including Tribal knowledge (Scientific vs Traditional knowledge are hand in hand cannot negate each other). Example of <i>Lucu Pungna</i> – place of the shimmering soil (thru science – where there is mica); I405 – HR remains found a lot of mica so the archaeologists hands were shimmering; Tribe has information on places that it is willing to share.
May 31, 2022	Brandy responded that Chairman Salas is busy till sometime in July. SR responded and asked about including Matt.
June 14, 2022	Mariam D. spoke to Andrew Salas and Patrick Tumamait (Chumash) and they want to talk to SR together. (Email from Mariam “ I met with the Kizh Nation this morning and they are looking forward to meeting with you to discuss the LA Basin Study research themes/questions. Andy Salas said that he has spoken with Patrick Tumamait, and they would like to meet together so that they can share their stories in a collaborative manner. Patrick has also told me that he is now the Vice Chair of the Barbareño/Ventureno Band of Mission Indians; it appears that Julie Tumamait has been replaced by Dana Barrios as Chairperson for the tribe. SR replied that she will schedule upon return from India.
June 27, 2022	SR emailed Mariam D. asking how to schedule the meeting
July 12, 2022	Had zoom interview with Chairman Salas and Matt T. and Patrick Tumamait
Aug. 4, 2022	Had second zoom interview with Chairman Salas and Matt T. and Patrick Tumamait

No further outreach was done after consultation with CT D7 Tribal Liaison Ms. Mariam Dahdul

**Gabrieleño/Tongva
Gabrieleno (Tongva) Band of Mission Indians
(San Gabriel Band of Mission Indians)**

**Anthony Morales, Chairperson P.O. Box 693
San Gabriel, CA, 91778
Phone: (626) 483-3564
Fax: (626) 286-1262
GTTribalcouncil@aol.com
chiefRBwife@aol.com (personal)**

**Adrian Morales (son) moralesadrian66@yahoo.com
626-209-7642**

Outreach

Date	Communication
Feb 2, 2022	Email sent regarding the LA Basin Study and request participation.
March 16, 2022	2nd email sent
April 22, 2022	Spoke to Chairman Morales; and he provided the following information. He shared insights (see below); and asked that ethnographer contact his son.
April 25, 2022	Left detailed voice message for Adrian Morales
April 18, 2022	Left another message for Adrian M., and also texted him
May 11, 2022	Sent another text message

No further outreach was done after consultation with CT D7 Tribal Liaison Ms. Mariam Dahdul

April 22, 2022 – Notes from conversation with Chairman Morales

- What should Tribal consultation look like?
People call up and inform Tribe that there is a project and ask if there are resources that will be impacted; and then there is no follow up unless there is an inadvertent discovery. The effort is only to check a box that the Tribe has been consulted. The Tribe does not get to comment on the draft or even see the end product. This is not meaningful consultation.
 - It has to be personalized, respectful and collaborative;
 - Need it to be due diligence;
 - identify the best questions;
 - ask Tribe for input on questions;
 - make a sincere effort to understand concerns and work together to get to a reasonable solution;
 - understand that Tribes do not have capacity to respond to emails so make respectful effort through multiple emails and phone calls.
 - Ethnographies and ethnohistories tailored to projects should be done for each project, and they should not just be cut and paste from other projects. They should be important components of each report.
 - Need to know past history to be able to anticipate what may be found;
 - Make sincere attempt to learn about the ethnohistory of the Project area;
 - Include Tribes in writing about their histories;
- Would the Tribe be willing to share their view(s) on how the Tribe defines Tribal resources?

They include a wide range including archaeological sites, place names, spaces on the landscapes, landscapes, waterways, natural resources (plants and animals, minerals from the earth). Tribes look at the earth differently than western cultures - everything has a spirit and should be protected.

- How communities define boundaries is shaped by culture. Towards this, would the Tribe be willing to share thoughts on boundaries for Tribal resources, and about the fit (or lack of it) between their beliefs and the western concept of boundaries in space?
 - Chief Morales relies on oral history; but also recognizes that these have changed through colonialism and modernization;
 - Traditionally there were no boundaries; all was shared; gathered, celebrated in a shared manner;
 - Tribes traveled back and forth easily, went to others' areas and then returned back to their territories – problem with this is that today there are Tribal entities and individuals take advantage of openness of the invitation – just because they visited does not make the area their ancestral territories. Need to respect each other's ancestral territories today since it is a different situation now – to avoid encroachment.
- Starting in 1769, colonialism has resulted in loss of Indigenous lives, ancestral lands, and cultures. These losses manifest themselves through generation and historic trauma. In this context, would the Tribe be comfortable talking towards what the loss or damage to a Tribal resource today means?

Today the Dept of Interior is investigating the wrongs done by colonialism by looking at residential schools. Chief Morales's people were put in Sherman school; Natives and his ancestors were slaves of the Church (San Gabriel Mission) and over 6000 ancestors are buried there. Missions were a form of Indian schools, where Native people were forced to change their ways, their cultures and experienced a lot of abuse (physical, sexual, mental, cultural). As a result of colonialism (Spanish, Mexican and American) Natives were deprived of capitalizing on the economy and capitalism.

So, loss of a Tribal resource only reaffirms and revives all the trauma over the past 300 years; and reinforces colonial subjugation because the Tribe is not given a voice.

- If a Tribal resource is destroyed, can it be re-created elsewhere? If so, how can it be re-created? If no, why can it not be re-created?

It may have end result that is not favorable; however, in some cases it may also help. For example, channelizing a waterway may help protect Tribal resources.

Example of Ballona – developer did not want to divert the waterway to protect the Native village because it would have been more time and money.

**Gabrieleño/Tongva
Gabrielino /Tongva Nation**

Sandonne Goad, Chairperson
106 1/2 Judge John Aiso St., #231
Los Angeles, CA, 90012
Phone: (951) 807-0479 sgoad@gabrielino-tongva.com

Outreach

Date	Communication
Feb 2, 2022	Email sent regarding the LA Basin Study and request participation.
March 16, 2022	2nd email sent
March 21, 2022	Called but could not leave message because mailbox is full
April 25, 2022	Left a detailed message and requested consultation.

No further outreach was done after consultation with CT D7 Tribal Liaison Ms. Mariam Dahdul

**Gabrieleño/Tongva
Gabrielino Tongva Indians of California Tribal Council**

**Robert Dorame, Chairperson P.O. Box 490
Bellflower, CA, 90707
Phone: (562) 761-6417
Fax: (562) 761-6417 gtongva@gmail.com**

**Christina Conley, Tribal Consultant and Administrator
P.O. Box 941078
Simi Valley, CA, 93094
Phone: (626) 407-8761 christina.marsden@alumni.usc.edu**

Outreach

Date	Communication
Feb 2, 2022	Email sent regarding the LA Basin Study and request participation.
March 16, 2022	2nd email sent
March 21, 2022	Called but left message for Ms. Conley Ms. Conley responded via email that the Tribe would like to consult. SR responded asking for potential dates and times.
March 28, 2022	SR sent reminder email asking for time
March 31, 2022	Set meeting for April 4 at 10am
April 4, 2022	Met with Christina Conley (see notes below)
April 25, 2022	SR Sent the research themes and questions
April 28, 2022	Christina acknowledged and will work on questions and return by May 25 if possible.
May 9, 2022	Christina responded with “At tribal council meeting, we discussed your project at length and I don’t know if you are aware of the scope of this undertaking. Sadly, the consultations we have undertaken with CalTrans in the past decades have yielded only uncompensated work for our tribe and no changes on the SOPs that CalTrans undertakes in the Los Angeles Basin. There is not much motivation for participation. However, I believe that we can reach a new mutual understanding on the goals set forth. SR responded and apologized for the oversight and let Christina know again that there is an honorarium of \$100 per hr for max of 30 hrs.
May 10, 2022	Christina responded that she is working on the responses; and SR offered help.
June 3, 2022	Christina submitted contributions document

No further outreach was done after consultation with CT D7 Tribal Liaison Ms. Mariam Dahdul

Notes from April 4, 2022

- The Tribe is interested in participating in this study.
- The past with CT has not been good as recently as 9 months ago – Arroyo Sequoia Ave 43 near HWY 110. Had multiple zoom calls to recognize but the Tribe’s concerns were dismissed.
Christina will share the contact information with Mariam.

Fundamental thing with roadways is that they came from somewhere and everything evolved from trials. Pathways were adjacent to waterways, and Tribe sees waterway as life. A lot of sites are right off the

freeway, and if there are improvements, Caltrans has to take into consideration the role of waterways even if there are under concrete and not clearly visible.

- Lot of Tribe's history has been lost to colonialism, and Tribe is now putting back their history together. As back as her childhood, being NA was shamed. GF spoke Tongva but family did not know.
- Regarding the definition Cultural resources – Tribe is still here and are part of people; have transformed but persisted. Look at resources through the lens of relationship with land. For example, the village of Puvunga; it is assoc with a spring and this spring and water is very sacred to the Tribe. Even if the village is no longer visible, the place is of great importance. Similarly, Topanga and TCH –very sacred places for Tribe

What would you like to see happen in those areas that have been changed or destroyed and nothing is present; what would the Tribe like to see happen?

- Imp. to acknowledge the land; need to have monitor if ground disturbance
- Get Tribe to acknowledge the land that there was a village site there
- Not stopping progress, just need to be sensitive to Tribe's concerns
- Spaces between sites – warrants further investigations
- Boundaries – were established by geography – Chumash, Tataviam, Gab – use mt ranges
- Ownership of land was different so the issue of boundary in CRM is difficult to define

**Gabrieleño/Tongva
Gabrielino-Tongva Indian Tribe**

Charles Alvarez
23454 Vanowen Street
West Hills, CA, 91307
Phone: (310) 403-6048
roadkingcharles@aol.com

Outreach

Date	Communication
Feb 2, 2022	Email sent regarding the LA Basin Study and request participation.
March 16, 2022	2nd email sent
March 21, 2022	Called and left voice message message
April 25, 2022	Left a detailed message and requested consultation

No further outreach was done after consultation with CT D7 Tribal Liaison Ms. Mariam Dahdul

**Juaneño
Juaneño Band of Mission Indians**

Sonia Johnston, Chairperson
P.O. Box 25628
Santa Ana, CA, 92799
sonia.johnston@sbcglobal.net

Outreach

Date	Communication
Feb 2, 2022	Email sent regarding the LA Basin Study and request participation
March 16, 2022	2nd email sent
April 25, 2022	sent 3rd email

No further outreach was done after consultation with CT D7 Tribal Liaison Ms. Mariam Dahdul

Juaneño
Juaneño Band of Mission Indians Acjachemen Nation - Belardes

Matias Belardes, Chairperson
32161 Avenida Los Amigos
San Juan Capistrano, CA, 92675
Phone: (949) 293-8522 kaamalam@gmail.com

Joyce Perry, Cultural Resource Director
4955 Paseo Segovia
Irvine, CA, 92603
Phone: (949) 293-8522 kaamalam@gmail.com

Outreach

Date	Communication
Feb 2, 2022	Email sent regarding the LA Basin Study and request participation.
March 16, 2022	2 nd email sent; Ms. Perry responded that the Tribe wishes to consult; and asked for more context on what consultation for this will entail, and additional information about this study. SR responded asking for a virtual meeting between March 21 and 31.
March 31, 2022	Met with Joyce Perry; provided a summary of the intent and purpose of the Study, and what SR would like to explore and discuss including bringing Tribal voices to the forefront. (See notes below).
April 25, 2022	SR sent questions and themes
May 10, 2022	Joyce emailed that she would return responses May 17, 2022
September 22, 2022	Joyce emailed asking if the project is still moving forward and if ethnographer is still interested in Tribe's contribution. SR responded that we are still very keen.
Dec. 16, 2022	SR emailed Joyce requesting contribution but did not get response.

No further outreach was done after consultation with CT D7 Tribal Liaison Ms. Mariam Dahdul

Notes from March 31, 2022

The goal is to go beyond typical studies that only talk about the past – this will also include how Tribes today. For example, what is a cultural resource as understood by the Tribes.

Tribal or cultural resources are viewed as Life Resources – land, water, burial grounds, is a living being. How are life sources defined?

Everything has life; but Tribe understands that their definition of Life Resource has to fit into the definition of Cul resource.

What is the history of the term Cultural resource? Why and how did it come about?

There is a diff between Cultural and Tribal resource.

Connection with the dead continues post death. So when there is a death, the body goes back to the earth and increases the connection.

TCP – in arch in particular, there are criteria that have to be fulfilled. The sterile spaces between presence are imp to Tribes. So, need to look beyond how the archaeological practice looks at site boundaries and accommodate Tribal understanding of boundaries of spaces.

JP recc. looking at the Bolca Chica Report – how Natives think about boundaries, life sources, natural resources. SRS Ethnographic overview of Bolca Chica Project, South Coast Archaeology

Anastasia Wiley, Susan and Frank Lobo Bolca Chica Tech Series 2 June 2012. Email for Anastasia Wiley: wileycoyote@srscorp.net

CT wants to partner and go beyond mitigation; collaborate for projects that can incorporate Project features that are imp to Tribes – art, plants.

To show people who are moving in these spaces whose spaces they belonged

Tribe – asks for signs that show who the land belonged to originally

No further outreach was done after consultation with CT D7 Tribal Liaison Ms. Mariam Dahdul

Juaneño
Juaneño Band of Mission Indians Acjachemen Nation 84A

Heidi Lucero, Chairperson
31411-A La Matanza Street
San Juan Capistrano, CA, 92675
Phone: (562) 879-2884 hllucero105@gmail.com

Outreach

Date	Communication
Feb 2, 2022	Email sent regarding the LA Basin Study and request participation
March 16, 2022	2nd email sent
April 25, 2022	Left detailed voice message and requested consultation

No further outreach was done after consultation with CT D7 Tribal Liaison Ms. Mariam Dahdul

**Kitanemuk, Vanyume, Tataviam
San Fernando Band of Mission Indians**

Donna Yocum, Chairperson
P.O. Box 221838
Newhall, CA, 91322
Phone: (503) 539-0933
Fax: (503) 574-3308
ddyocum@comcast.net

Outreach

Date	Communication
Feb 2, 2022	Email sent regarding the LA Basin Study and request participation.
March 16, 2022:	2nd email sent
April 25, 2022	Left detailed voice message and requested consultation

No further outreach was done after consultation with CT D7 Tribal Liaison Ms. Mariam Dahdul

Luiŝeño
La Jolla Band of Luiŝeño Indians

Norma Contreras, Chairperson
22000 Highway 76
Pauma Valley, CA, 92061
Phone: (760) 742-3771

Outreach

Date	Communication
Feb 2, 2022	A hard copy of letter regarding the LA Basin Study and request participation.
March 21, 2022	Called but could not get to a person on the phone
April 25, 2022	Called office spoke to Nicole (receptionist) and left detailed voice message for Chairperson Contreras and requested consultation

No further outreach was done after consultation with CT D7 Tribal Liaison Ms. Mariam Dahdul

Luiŝeño
Pauma Band of Luiŝeño Indians

Temet Aguilar, Chairperson
P.O. Box 369
Pauma Valley, CA, 92061
Phone: (760) 742-1289
Fax: (760) 742-3422 bennaecalac@aol.com

Bennae Calac

Outreach

Date	Communication
Feb 2, 2022	Email sent regarding the LA Basin Study and request participation.
March 7, 2022	Spoke to Bennae; and she requested SR send the email again and cc to Patti Dixon and Chris Dever, which was done
March 16, 2022	2nd email sent
April 25, 2022	3 rd email sent

No further outreach was done after consultation with CT D7 Tribal Liaison Ms. Mariam Dahdul

**Luiseno
Pechanga Band of Indians**

**Lisa Woodward, Ebru Ozdil, Michele Fahley
P.O. Box 1477
Temecula, CA, 92593
Phone: (951) 770-6000**

Outreach

Date	Communication
Feb 2, 2022	Email sent regarding the LA Basin Study and request participation.
Feb 9, 2022	Tribe asked for clarification on whether the islands were included and the extent into southeastern Orange County. SR responded that the islands are not included given focus on Caltrans Highways within the LA Basin. At the request of Caltrans, the Study is focused on the major drainage basins of the greater LA Basin, and CT requested that the Study area extend to the southeast to include the Newport Bay Hydrologic Unit in Orange County. And asked if there are specific areas that the Tribe is interested in knowing whether they are in the SE part of the Study area or not.
March 16, 2022	2nd email sent
March 17, 2022	Ms. Fahley responded that the Project is outside the Tribe's territory

No further outreach was done after consultation with CT D7 Tribal Liaison Ms. Mariam Dahdul

**Luiseno
Rincon Band of Luiseno Indians**

**Cheryl Madrigal, Tribal Historic Preservation Officer
One Government Center Lane
Valley Center, CA, 92082
Phone: (760) 297-2635 crd@rincon-nsn.gov**

Outreach

Date	Communication
Feb 2, 2022	Email sent regarding the LA Basin Study and request participation
March 16, 2022	2nd email sent
March 18, 2022	Tribe responded and sent letter that the Study area is not in Tribe's territory.

No further outreach was done after consultation with CT D7 Tribal Liaison Ms. Mariam Dahdul

Quechan
Quechan Tribe of the Fort Yuma Reservation

Manfred Scott, Acting Chairman Kw'ts'an Cultural Committee
P.O. Box 1899
Yuma, AZ, 85366
Phone: (928) 750-2516 scottmanfred@yahoo.com

Jill McCormick, Historic Preservation Officer
P.O. Box 1899
Yuma, AZ, 85366
Phone: (760) 572-2423 historicpreservation@quechantribe.com

Outreach

Date	Communication
Feb 2, 2022	Email sent regarding the LA Basin Study and request participation
Feb 9, 2022	Tribe responded they do not have any comments and defer to local Tribes.

No further outreach was done after consultation with CT D7 Tribal Liaison Ms. Mariam Dahdul

**Serrano
San Manuel Band of Mission Indians**

**Jessica Mauck, Director of
Cultural Resources
26569 Community Center Drive
Highland, CA, 92346
Phone: (909) 864-8933
Jessica.Mauck@SanManuel-NSN.Gov**

Outreach

Date	Communication
Feb 2, 2022	Email sent regarding the LA Basin Study and request participation
March 3, 2022	Tribe responded that the Project is outside Tribe's territory so Tribe does not have any comments

No further outreach was done after consultation with CT D7 Tribal Liaison Ms. Mariam Dahdul

**Serrano
Serrano Nation of Mission Indians**

Mark Cochrane, Co-Chairperson
P. O. Box 343
Patton, CA, 92369
Phone: (909) 528-9032 serranonation1@gmail.com

Wayne Walker, Co-Chairperson
P. O. Box 343
Patton, CA, 92369
Phone: (253) 370-0167 serranonation1@gmail.com

Outreach

Date	Communication
Feb 2, 2022	Email sent regarding the LA Basin Study and request participation
March 16, 2022	2nd email sent
April 25, 2022	Left detailed voice messages for both Mr. Cochrane and Mr. Walker

No further outreach was done after consultation with CT D7 Tribal Liaison Ms. Mariam Dahdul

Tataviam: Fernandeano Tataviam Band of Mission Indians

Jairo Avila, Tribal Historic and
Cultural Preservation Officer
1019 Second Street, Suite 1
San Fernando, CA, 91340
Phone: (818) 837-0794
Fax: (818) 837-0796 jairo.avila@tataviam-nsn.us

Outreach

Date	Communication
Feb 2, 2022	Email sent regarding the LA Basin Study and request participation.
March 10, 2022	Received response from Jairo Avila; asked the following questions. “I am curious to know why the greater Los Angeles area was selected and not the entire County or the jurisdiction of District 7? Also, what other information centers (i.e., scic, UCLA, historical societies) are being used to gather information?” And, asked for meeting over the next couple weeks. SR responded checking availability on March 14 and 17th for a meeting Also provided the following answers: 1. In terms of the Study area, at the request of Caltrans, the Study is focused on the major drainage basins of the greater LA Basin, and CT requested that the Study area extend to the southeast to include the Newport Bay Hydrologic Unit in Orange County. 2. Regarding archival research, a record search is being conducted at the IC; online archival resources, Bancroft Library, and Harrington notes as relevant. 3. For the period of significance, we are focusing on Native American Pre-contact and Mission period primarily but also touching on the rest of the 19th century as it pertains to Tribes; but no Euro-American or modern history.
March 11, 2022	Set meeting with Jairo Avila for Monday March 14 at 1pm
March 14, 2022	Met with Jairo Avila over zoom; SR explained the scope of the Study. See notes below. SR sent the questions for Tribe’s contributions
April 4, 2022	The Tribe is unable to provide support at this time. We do not have sufficient bandwidth to assist with this Project.

Notes from March 14, 2022:

He had the following questions.

1. What is the intent of the Study?
2. Who will have access to it?
3. Use of the word “consideration” in the consultation outreach is problematic for the Tribe because it suggests that the agency will only *consider* what is important; i.e. may or may not take Tribe’s opinion. SR explained how the word is used - which is not intended in how the Tribe has interpreted it but that it imparts that Tribe’s concerns should be included in project planning and execution.
4. Tribe feels strongly that the document should not replace consultation for a project. Marium D. and SR confirmed that the document will be a guidance document and not replace consultation.

5. Tribe asked that SR look at the LA River Master Plan (Tribe worked with LA City Dept of Sustainability) for information.
6. Tribe would like to discuss the following two issues:
 - a. How does consultation look like from the Tribe's perspective?
 - b. How to include Tribal voices in mitigation, and how to collaborate with Tribes to reflect and incorporate Tribal values in mitigation?

No further outreach was done after consultation with CT D7 Tribal Liaison Ms. Mariam Dahdul

APPENDIX H

TRIBAL RESEARCH THEMES AND QUESTIONS FOR THE STUDY

Tribal Research Themes Questions for the Study

Seetha Reddy

reddyanthropology@gmail.com

I have three main themes for the Tribe to consider contributions to the Los Angeles Research Design. Within each I have identified some questions; and, of course, if the Tribe would like to add other questions and answers that would be deeply appreciated.

The Tribe is most welcome to write in the answers and return to me; or I can set up a virtual meeting to discuss these. Whichever option works best for the Tribe.

A. Tribal History, Traditional Knowledge, and Cultural Landscapes

1. Would the Tribe be willing to share their view(s) on how the Tribe defines Tribal resources? For example, what types of resources could potentially be included (archaeological sites, place names, spaces on the landscapes, waterways, natural resources, and so on)
2. How communities define boundaries is shaped by culture. Towards this, would the Tribe be willing to share thoughts on boundaries for Tribal resources, and about the fit (or lack of it) between their beliefs and the western concept of boundaries in space?
3. The Tribe likely has special and deep connections to particular areas within the Los Angeles Basin. Would the Tribe be willing to share information about those areas? To protect the areas, the Tribe can consider sharing a generalized locational information.
4. Indigenous people have generational and ancestral relationships with specific natural features. Are there any such examples within the Los Angeles Basin that the Tribe is willing to share?
5. Are there any specific natural resources including plants, animals, water ways, raw materials that are in the Los Angeles Basin that are particularly important to the Tribe? Their importance could be spiritual, subsistence related, economics related and in any other cultural realm.
6. Cultural landscapes can include a wide range of components, and how such landscapes are defined is specific to the culture in question. How does the Tribe perceive and envision cultural landscapes? What do they mean to them? Does the Tribe identify specific elements or constituents that must be present for the existence of a cultural landscape?

B. Historic Trauma, Survival and Persistence

1. Starting in 1769, colonialism has resulted in loss of Indigenous lives, ancestral lands, and cultures. These losses manifest themselves through generation and historic trauma. In this

context, would the Tribe be comfortable talking towards what the loss or damage to a Tribal resource today means?

2. If a Tribal resource is destroyed, can it be re-created elsewhere? If so, how can it be re-created? If no, why can it not be re-created?
3. When a Tribal resource is destroyed, what is lost?
4. Despite the concerted efforts of the colonizers, Tribes have persisted and are making important strides to revitalize their cultures and empower their people.
 - a. How have specific places on the cultural landscape contributed to revitalization and empowerment?
 - b. Are there special places that contribute to the Tribe's healing?

C. Working with Tribes

1. For successful preservation of Tribal resources, a good collaboration between local agencies, Caltrans and Tribes is needed. Is the Tribe willing to share their thoughts on how such a collaboration should look like?
2. Is there anything specific the Tribe would like to share what a successful and culturally competent government to government consultation should look like?

Thank you for your time and help!

APPENDIX I

CONTRIBUTIONS FROM THE GABRIELINO TONGVA INDIANS OF CALIFORNIA



TRIBAL CONTRIBUTIONS TO THE THEMES AND QUESTIONS FOR LOS ANGELES RESEARCH DESIGN



The Gabrielino Tongva Indians of California June 2022

DISCLAIMER:

The answers to the questions presented are from the Gabrielino Tongva Indians of California (GTIOC) and represent our viewpoint and not that of any other tribe.

The use of the word, "colonist" is the closest description to those who came to Toraangar and inhabited the land from the Tongva and is not intended to be derogatory.

Toraangar is the land of the Gabrielino Tongva Indians of California. The borders of the territory extend clockwise along the Santa Susana and San Gabriel Mountains, through Cucamonga to Redlands, south through Riverside, veering southwest past Lee Lake to Aliso Creek and up the coast of the Pacific Ocean to Malibu (approximately 1500 square miles on the mainland). Most of the territory lies below 1,000 feet. In addition, San Clemente, Santa Catalina and San Nicholas Islands are included in the nation's territory.

***"The ocean, the trees the fish... they are our brothers and sisters."
-Jessa Calderon, Tongva/Chumash***

INTRODUCTION:

After an intensive tribal meeting with Gabrielino Tongva Indians of California Tribal Chair and Most Likely Descendant, Robert Dorame, it became more apparent that the answers to this inquiry on tribal contributions and themes would have to come from optics of 1542 not 2022.

The questions presented are structured through a widely accepted approach to understanding in 2022 but the terms and definitions are not what they were during the pre-colonization period. We interpret many of the questions presented in the inquiries as same subject matter - it is colonial semantics of 2022.

We view the following terms as referring to the same thing: special features, tribal resources, connections, natural resources, cultural landscape and culture. We see ourselves as one with the land and there is little distinction to these terms.

In the last 400 years, the Gabrielino Tongva Indians of California have observed that generally, the colonist is not connected to the land they reside on. They become "takers" and do not view the land the way our ancestors did as "caretakers."

Ironically, the eyes of the 18th century colonist is not so different from the 2022 colonist, they expect the landscape to look different to define land as “inhabited” (with familiar structures and fences). “Go west young man!” was considered an opportunity for a colonialist to have a successful future. Colonists saw our land as the “wild west” for homesteaders to settle their private interests and holdings and completely disregard that it was already an established inhabited land.

It has become increasingly obvious that the colonist struggles with the concept that there has been a vibrant and thriving population of humans in the Los Angeles Basin for over 4500 years. A typical question asked in our tribal nation to nation consultations for a construction project is, “tell me about your settlement history.”

In 1542, a Spanish expedition arrived in Toraangar at Pimu (Catalina). It was a clear intent on surveying the land for seizure. Eventually, the Spanish colonization in 1769 succeeded in taking the land. The destruction of our ancestors started with disease, theft of land, slavery and eventually, the willful extermination of our people.

OUR CULTURE:

From the optics of 1542:

After first contact, the value system in Toraangar was force changed.... might makes right. The inhabitants would now be the user VS. caretaker.

Our ancestors were not ranchers or farmers - they did not hold animals in pens nor plant vegetation for consumption. Our ancestors were completely dependent on the land; when and what the land wanted them to have for the necessities of daily life.

Current thoroughfares evolved from our village trails running adjacent to the rivers and ocean. The roads developed into highways and freeways because the volume of traveler increased.

Unlike other aboriginal tribes in North America, there was no motivation for the Tongva in warring with each other, we were related by blood and marriage.

Extermination Project from the Land and Life

“The native Indians who welcomed the Spanish in 1769 were many in number, possessing a way of life suitable for themselves under the conditions they had been used to living. But they were forced to move from a primeval, naturalistic society, in which Nature was their greatest overlord, into the contrived, dominating rule of an alien conqueror.” Heizer 1968

In 1851, California Governor Peter Burnett stated that “[A] war of extermination will continue to be waged between the races until the Indian race becomes extinct....”

Devalue and create inhuman to SILENCE the indigenous

The “intellectuals” of the 19th century supported a tiered system to grade the value of human life and this was a justification for the colonist who were exercising Manifest Destiny.

“At some future period, not very distant as measured by centuries, the civilised races of man will almost certainly exterminate and replace throughout the world the savage races.” -Charles Darwin

The use of disparaging nouns such as “neophyte,” “heathens” and “savages” are written throughout colonial history. This devalues the indigenous people in an attempt to justify both the removal and dismissal of our ancestors who stood in the way of the valuable land.

In 1854, in the suit, *People v. Hall*, expanded Section 394 of the Civil Practice Act providing “No Indian or Negro shall be allowed to testify as a witness in any action in which a White person is a party.” California Supreme Court justified the ruling by citing, “The evident intention of the Act was to throw around *the citizen* a protection for life and property, which could only be secured by removing him above the corrupting influences of the *degraded castes*.”

Stanford University geology professor, J.R. Pemberton took his students to Topanga Beach for a field trip in 1910. Upon the discovery of the skeletal remains of 34 Tongva, Pemberton described them as not having “human characteristics” with respect to shape of head, nose or jaw. No surprise that this professor came from the birthplace of eugenics, Stanford University.

Lastly, It should also be noted there are only 3 living groups whose life value is measured on blood quantum: dogs, horses and Native Americans. No other ethnicity is put under such scrutiny. This is a modern way of dismissing indigenous peoples and a modern way of extermination of the indigenous voice.



Clara Duarte Dorame (1884-1913) San
Pasqual (Pasadena), California
Gabrielino Tongva Indians of California

Mission Period

Our ancestors were forced to live at the Mission San Gabriel and give up their value system, way of life and ability to independently survive. Families were torn apart hoping to avoid the fate of being a slave on a mission site.

The overcrowded conditions and physical punishment incited a fear that exhibited the lack of respect cemented within mission culture.

Yangna Village (Downtown Los Angeles) est. 3000 years before colonialism.

1850 ordinance - Indians arrested for drunkenness and be auctioned off to private parties as retribution in a week of labor.

1828 the Mexican government allowed French immigrant Jean-Louis Vignes to purchase the remaining village land of Yaangna and had the remaining indigenous peoples evicted. By 1847 the village was raised by the Los Angeles City Council and our ancestors were forced into public work jobs or jailed.

1851 Indian laws - allowing Indian child theft and slavery condoned by the State of California.

An observation:

What if our ancestors did not greet the explorers and colonists with kindness and generosity but rather attacked them before they could reach our land, we would have been protected by the invader from both violent seizure and disease. Our ancestors would have been recognized as a sovereign nation and our future and values preserved.

Our Ethos

The Gabrielino Tongva Indians of California are respectful to the natural resources which have sustained our family's lives for centuries. Intern, The Gabrielino Tongva Indians of California are the caretakers of our ancestral land. To understand this concept of harmony with the land will bring clarity to the responses below.

Message

If there is one message conveyed by Gabrielino Tongva Indians of California to this research project, it is that our tribe is still alive and we are still here. Sadly, agreements between our sovereign nations are continually broken still today. After 253 years, the colonists are still giving excuses as to why our tribe and our cultural resources will not be preserved because they don't fit into their narrative and their value system.

Key point:

All of our ancestral past history explains why we cherish the land because it is our fiber and culture- we are part of the land. To not understand our tribal mindset places all of

the following responses as moot. What is “obvious” to us about cultural resources is often dismissed by the colonist as “just a tree,” or “just a river.”

NOTE: Answers will be overlapping into other responses, we appreciate your understanding.

A. Tribal History Traditional Knowledge and Cultural Landscapes

- 1. Would the Tribe be willing to share their view(s) on how the Tribe defines Tribal resources? For example, what types of resources could potentially be included (archaeological sites, place names, spaces on the landscapes, landscapes, waterways, natural resources, and so on)**

In order for us to adequately respond to this inquiry, your value system, norms, traditions and our modern culture are begged to be suspended.

Tribal resources include but are not limited to biological, geological, botanical, archeological, prehistoric and historic landscapes.

In 2022, we would all agree that the Taj Mahal or Niagara Falls should be protected, preserved, saved, defended and restored at all cost, they are culturally sacred areas. In a tribal viewpoint, our land is valued the same way but it isn't viewed or as obvious to the colonist as the measurement for value is different.

Tribal resources include but are not limited to the following:

Specifically to a biological tribal resource reference to animals include both ocean and land animals: fish, whales, seals, sea otters, shellfish, blackbirds, crow, wildcat, gophers, badgers, coyotes, squirrels, raccoons and skunks to name a few.

Geological tribal resources include: obsidian, soap stone (from Pimu) and basalt rock (Topanga).

Botanical tribal resources include: Acorns, chia, Juncus, white sage, wicker, saw brush, sugar grass, sumac, deer grass, yarrow and yucca. The oak, sycamore, bottle brush, and walnut trees are tribal resources.

Mission life negatively affected our relationship to our tribal resources. Aside from the destruction of those resources, the ignorance of the mission leaders not understanding our relationship to the land further disrespected our ancestors. A female ancestor on mission ground who miscarried a baby would be subject to cruel punishment of physical torture (15 days) and mental torture of having to attend Mass with a wooden doll made from the same trees she valued culturally and perverting her perspective of the land.

Colonist vs. Indigenous tribal resources:

The County of Los Angeles designates a cultural resource by LAN when a survey is done by an archeologist/anthropologist/geologist. State and federal laws will be in operation once they are identified.

The challenge for natives is to get the cooperation from the developer/landholder that these are not isolated areas and we consider tribal resources beyond the small amount of identified areas by "LAN." There is no protection for our resources.

2. How communities define boundaries is shaped by culture. Towards this, would the Tribe be willing to share thoughts on boundaries for Tribal resources, and about the fit (or lack of it) between their beliefs and the western concept of boundaries in space?

As the waterways flow from the mountains to the ocean, they have no boundaries except the volume of water which makes it ebb and flow. The oak trees do not decide where they will grow but they freely distribute themselves as the land dictates.

The colonist erects fences and boundaries as part of their culture to protect their possessions from one another. The "good fences make good neighbors" concept is accepted by the colonist but not by the Tongva. The Tongva is obligated to protect our land for everyone regardless of the presence of a fence as we do not possess the land.

Our ancestors shared all natural resources and cultural sacred sites as we overlapped with our sister tribes, the Chumash, Tatavium and Serrano for the partaking of the natural resources as we had a common goal of staying alive. We also intermarried with our sister tribes.

Our ancestors celebrated with the Chumash and Tatavium at Burro Flats and did not anticipate the need for any barriers.

Punishment of being banished or executed would be exercised if a tribal member hoarded or mismanaged food. Hunters and fishermen could not eat their own kill but had to share with the community.

Hugo Reid recalls, "Robbery was never known among them. Murder was of rare occurrence, and punished with death. Incest was likewise punished with death: being held in such abhorrence, that marriages between kinsfolk were not allowed. The manner of putting to death was by shooting the delinquent with arrows." Reid also points out the "song duels," in lieu of physical fighting which would last 8 days.

The largest span of "ownership" and boundaries in California was introduced 253 years ago compared to 4500 years of continued sustainability of cooperation and caretaking of the land.

This open concept way of living clearly backfired when colonists came as there was no refuge behind fortified walls.

3.The Tribe likely has special and deep connections to particular areas within the Los Angeles Basin. Would the Tribe be willing to share information about those areas? To protect the areas, the Tribe can consider sharing a generalized locational information.

We have a deep connection to the waterways of the Los Angeles Basin.

Our tribal villages lived and thrived along the river ways as well as the smaller waterways for over 4500 years. These water ways sustained life for the indigenous peoples and then the missions and ranches. Our communities were situated next to the rivers.

Tribal leader, Cindy Alvitre, “Colonization and missionization accelerated the pace of relocation as native people tried to outrun the colonizers, always clinging to the river.” Note that our culture is one of non-confrontation.

The colonist sitting in traffic on the 110 freeway sees the parallel cement “storm drain” and thinks nothing of it except as a canvas for the latest graffiti wars and a receptacle for garbage. This is the sacred land taken by the colonist and not taken care of by the colonist.

3.The Tribe likely has special and deep connections to particular areas within the Los Angeles Basin. Would the Tribe be willing to share information about those areas? To protect the areas, the Tribe can consider sharing a generalized locational information.

By the time Spaniards came to the Yanngna Village (1781), the landmark sycamore tree where tribal council met was already 300 years old. 1847 Los Angeles City Council raised the village. This sacred sycamore tree was axed in 1892 for industrial development. No value was put on this multi-generational spot for tribal meetings, rituals and ceremonies.

Kuruvungna

An example of a water source rich in tribal resources and called sacred is within the village Kuruvungna which had two natural springs, one of which still flows today. This tribal area was a meeting place for rituals. The sacred land also provided needed fresh water for our village and sustained food such as watercress.

The Portola Expedition of 1769 found themselves camped at the village. Juan Crespi describes the site:

“.. as we arrived and set up camp, six very friendly, compliant tractable heathens came over, who had their little houses roofed with grass, the first we have been seeing of this sort. Three of them came wearing a great deal of paint; all of them, however, unarmed. They brought four or six bowls of usual seeds and good sage which they presented to our captain; on me they bestowed a good sized string of the sort of beads that they all have, made of white sea shells and red ones (though not very bright colored) that look to be coral, though of a very inferior sort.”

Note that the explorers were met with generosity and kindness, not “savagery” or malice.

The sacred springs sit on the LAUSD University High School. During the construction of the school (1924), our village was discovered and a cemetery was unearthed in 1975.

The Barrington Plaza was built in 1962 and is adjacent to the springs. During the development of the land, there was no acknowledgement of this sacred site and the water was simply rerouted and channeled to a sewer drain.

There was no consideration or acknowledgement to the context and sensitivity to preserve the site.

5. Are there any specific natural resources including plants, animals, water ways, raw materials that are in the Los Angeles Basin that are particularly important to the Tribe? Their importance could be spiritual, subsistence related, economics related and in any other cultural realm.

The landscape in its natural state is considered sacred. A few of the many natural resources we consider sacred are water, trees, ocean amongst vegetation. Food is considered spiritual.

Geological survey 1800 documented an abundance of quail, duck, geese, and golden eagle; these are now close to extinction or extinct.

6. Cultural landscapes can include a wide range of components, and how such landscapes are defined is specific to the culture in question. How does the Tribe perceive and envision cultural landscapes? What do they mean to them? Does the Tribe identify specific elements or constituents that must be present for the existence of a cultural landscape?

Our cultural landscapes are associated with the land, the water from a spring, river or ocean and everything that grows on it. It is not a possession.

B. Historic Trauma, Survival and Persistence

- 1. Starting in 1769, colonialism has resulted in loss of Indigenous lives, ancestral lands, and cultures. These losses manifest themselves through generation and historic trauma. In this context, would the Tribe be comfortable talking towards what the loss or damage to a Tribal resource today means?**

Our tribe successfully thrived for over 4500 years. When the Spanish expedition arrived in 1542 (not 1769), it was with clear intent to claim the land, with which they succeeded. The decimation of our ancestors started with disease and continued through the theft of land, slavery and eventually, the willful extermination of our people.

Today, insults continue to disrespect our culture as our current tribal resources are strained working on protecting the land.

The following are just a few examples (physical locations) of the disregard to our ancestral sacred land:

Self-Realization Fellowship Lake Shrine, Pacific Palisades - built on recognized sacred Tongva land in 1950.

Pacific Coast Highway and Sunset Blvd. sits on a known cemetery - CalTrans failed to properly address the findings and provide the sensitivity needed for such a project.

Destruction of Guashna by the developer Army corps of engineers. In 2002-2004, they allowed the destruction of the Ballona Wetlands stating that they, "need to put a bridge over it."

Deadman's Island in San Pedro: the record of the Army Corps of Engineers established this area had been a Native American sacred cemetery site for several centuries. Despite this, they dredged the island and put land fill over it to develop the harbor in 1928. Ironically, all of the cultural findings were denied.

A known landform quarry at UCLA was both prehistoric and historic. Our ancestors used the quarry but due to the modern day occupation, it was destroyed. No longer a national treasure.

Topanga LAN-133: Topanga has been well documented to be a sacred land for prehistoric and historic times. Our grandfather performed purification rituals at Topanga Creek. A colonist merely sees a flow of water. In 1923, the LA Times lamented that our delta was being lost to a highway. By 1950, LAN-215, was documented but it had been destroyed by plowing.

Pandering Politicians

By the 1850s, the Federal Government showed concern of the health of our ancestors. 18 treaties with 140 California Indian tribes set aside 12,00 square miles of land. Politics would be the excuse not to ratify them.

California Governor Newsom gave Tongva land (Bruce Beach) to peoples who had only been here 100 years ago. This shocking disregard for Tongva presence was seen as an egregious political pandering to this “newer” inhabitant. Our tribe and sister tribes were shocked that the Governor made giving back land look easy. The California Government has been looking for reasons not to give our land back to the Tongva since 1850.

We have not been given back any land taken from us as of this writing.

ACCESS to tribal land is vital for healing

With no access to sacred land such as the Sunny Slept Vineyards in Pasadena, we continue to have our story suppressed.

Our brothers who had been forced on a reservation at Pine Ridge, South Dakota have never recovered the death of their culture which was tied to the land they were removed from. Sadly, they have become one of the most impoverished peoples of the United States.

The Tongva are told we are “extinct” and therefore hold no value, it is because our land has the value.

2. If a Tribal resource is destroyed, can it be re-created elsewhere? If so, how can it be re-created? If no, why can it not be re-created?

If the pyramids of Egypt are destroyed, can they be re-created elsewhere? Yes, they did that in Las Vegas. However, it is sorely lacking in authenticity and culture.

A tribal resource cannot be re-created - there are replicas of Burro Flats (a sacred site) in museums.... it is not the same. Our family cannot conduct summer solstice rituals in a museum, we are not outside, it is not private but a spectacle for the public to look at like an animal in a zoo.

“Once destroyed, a sacred place is not part of the landscape anymore. The culture and sacredness of the land has turned to hopelessness in efforts of preservation,” Tribal Leader, Robert Dorame.

There is an overwhelming devastation when an ancestral burial ground (like Dead Man’s Island) is thoughtlessly destroyed and covered over with imported fill soil. There

are numerous accounts of land developers bulldozing over our resources (including human remains) and suffering no consequences.

3. When a Tribal resource is destroyed, what is lost?

The word, “destroyed” can be expanded to include:

Exploited
Depredated
Raped
Exterminated
Enslaved

A part of our culture is lost when a resource is destroyed. We cannot imagine the oral history of eagles coming down from the sky and interacting with our ancestors without knowing what an eagle is.

The network of biological life that supports life has been destroyed, wetland plants and animals have been decimated by developers.

Development destroyed tribal resources, which destroyed our culture as these two entities are partly synonymous.

4. Despite the concerted efforts of the colonizers, Tribes have persisted and are making important strides to revitalize their cultures and empower their people.

a. How have specific places on the cultural landscape contributed to revitalization and empowerment?

The Gabrielino Tongva Indians of California would disagree that revitalizing our culture has been less than successful. We are still restricted from sacred lands.

Dream catchers sold at gas stations or smear sticks sold at Marshalls do not constitute any empowerment.

A yearly pow-wow on a university campus is hardly an advancement when indigenous peoples become “entertainment.” We are not allowed to practice our culture privately on our land.

Insults continue on respecting our culture as tribal monitoring for ground disturbances on culturally sensitive soil is challenged and denied.

b. Are there special places that contribute to the Tribe’s healing?

Permanent art installations which beautify the land, educate others to our past and reflect our culture can be found at Ballona Park.

C. Working with Tribes

- 1. For successful preservation of Tribal resources, a good collaboration between local agencies, Caltrans and Tribes is needed. Is the Tribe willing to share their thoughts on how such a collaboration should look like?**

Where do we go from here

In a good faith effort to go forward with our relationship with CalTrans, we have participated in this Survey. It should be acknowledged that the past consultations that CalTrans has asked our tribe to participate in were dismissed after their “reports were completed.” Concerns arise when the recommendations are not acknowledged. It seems that not much has changed since 1542. To not understand the necessity for tribal monitoring on ground disturbances within our tribal lands is an insult beyond words.

If there is one message conveyed by Gabrielino Tongva Indians of California to this research it is, we are still here, agreements are still being broken and excuses are being given to our tribe as to why our cultural resources cannot be preserved.

It is only since the last 40 years that there has been a slight acknowledgement via environmental legislation that previous communities/cultures/civilizations were here. Without Federal and State legislation, there is no motivation for governmental entities to acknowledge indigenous people’s rights as a sovereign nation.

“We gave up on CalTrans, they have no consideration for us or our land.” unnamed tribal elder.

- 2. Is there anything specific the Tribe would like to share what a successful and culturally competent government to government consultation should look like?**

A successful and culturally competent government to government consultation should be one where both parties are mutually respectful of the other party, no entity is greater than the other or holding more rights than the other.

Our tribe is charged with protecting our ancestors' personal effects.

Conclusion

Perhaps the excuse of needed housing, urban development and in-turn, the destruction of our sacred land by people who have been here less than 500 years would beg the question that maybe there is no more room for development and people should move onto areas less impacted by habitation.

We are not talking about a simple prairie, a trickling brook and an oak tree on a glossy marketing piece to be developed for the next rush of residents. We are talking about a land where people have thrived in a nurturing environment that provided all the needs of our people.

We are still here, positively contributing to the collective.

The Gabrielino Tongva Indians of California Tribe is known for our academic and art contributions to the County of Los Angeles in universities and museums (holdings include Autry, Getty, Huntington Library, MOCA, Fowler and Southwest Museum and Netflix's, City of Ghosts and Mercedes Dorame being the 2022 UCLA Arts and Architecture Keynote Commencement Speaker).

APPENDIX J

FLAKED AND GROUND STONE ANALYSIS

FLAKED STONE ANALYSIS

Text in **BOLD** indicate attributes that should be recorded as separate columns in Flaked Stone Analysis, including Edge and Debitage Analyses. Underlined texts indicate potential values for each artifact under that particular attribute. For all attributes, the following values can be assigned where they apply: (1) Indeterminate; (2) Not applicable; (3) Not recorded; and (4) None. Incomplete measurements are designated by a negative sign (-) before the value. If an artifact is too fragmented to determine an attribute, it should be "indeterminate."

Maximum Length – maximum distance between the proximal and distal ends of the artifact, in millimeters.

Maximum Width – maximum distance between the lateral ends of the artifact, in millimeters.

Maximum Thickness – maximum distance between the dorsal (exterior) and ventral (interior) faces of the artifact, in millimeters.

Artifact Type – using relevant typology:

- Projectile Points should be assigned to types under regional typologies (e.g. Elsasser 1978; Milliken et al. 2007)
- Crescents should be typed according to Tadlock (1966, Figure 1).
- Bifaces can be typed according to size (e.g., arrow or dart) or regional typologies.

Blank Type – the mostly likely original type of material used to make the tool: cobble (64–256 millimeters in circumference), pebble (4–64 millimeters in circumference), cortical flake, core reduction flake, biface reduction flake, interior flake, indeterminate flake/shatter, reworked biface, and chunk.

Primary Flaking Form – produced by intentional flake removal; if more than one flaking form is present, the most prevalent is recorded.

- Unifacial – flake scars on a single face up to an edge or end.
- Bifacial – flake scars on opposing faces up to an edge or end.
- Unidirectional – flake removal from a single direction, not forming an edge or end.
- Bidirectional – flake removal from opposing directions, not forming an edge or end.
- Multi-directional – flake scars showing removal of flakes from multiple, erratic directions.
- Bipolar – flake scars showing flake removal using two opposing forces, such as a hammer and anvil. Scars are typically flat with no bulbs of percussion and small, mirrored hit marks.
- Tested – one or two flakes removed.

Facial Use Wear – type of wear present on a face or multiple faces:

- Grinding – smooth surface with rounded peaks, usually caused by horizontal movement of the artifact on another surface.
- Pecking – battered surface usually caused by short-distance strokes from another hard surface.
- Striations – lines produced through abrasion showing stroke direction across the artifact.
- None – no evidence of facial use wear.

Cortex Present – presence or absence of outer rock layer.

Heat Treated – presence or absence of heat evidence, such as heat-altered texture or color variation.

Heat Treated – crazing, crazing, color variation, and/or pottlidding from heat treatment.

Weathering:

- Heavy – edges and removal scars are heavily rounded and dulled or completely obliterated.
- Moderate – edges and removal scars are obviously rounded and dulled, but still quite visible.
- Light – very little evidence of weathering, slightly dulled edges and removal scars are relatively fresh.
- None – no evidence of weathering is present, edges and removal scars are sharp and new.

Number of Edges with Use Wear or Intentional Flaking – each edge is analyzed with a standard set of attributes (see page 14-17 below).

CONTINUE ONLY IF THE ARTIFACT IS A DRILL (if other, continue below)

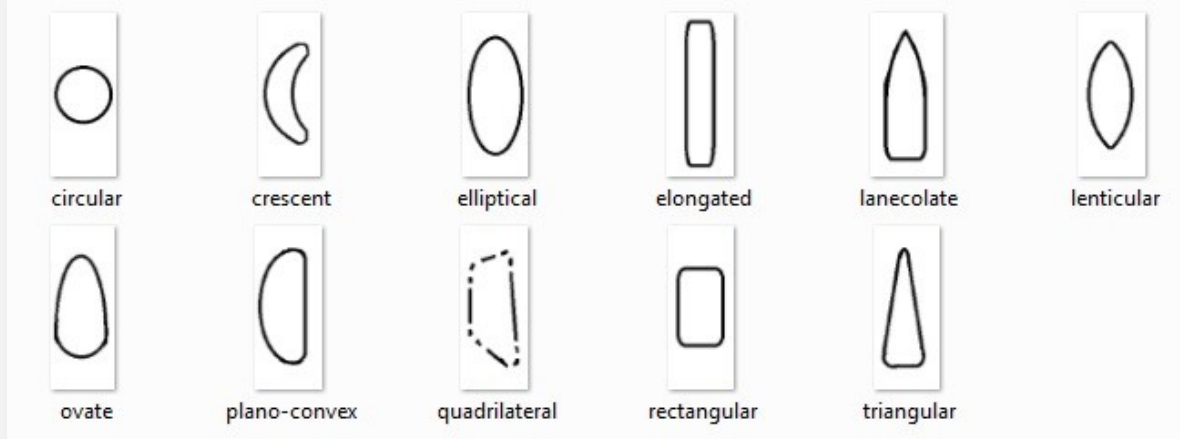
Bit Cross-Section – Diamond, Lenticular, and Triangular.

Bit Length – maximum distance between the proximal and distal ends of the drill bit in millimeters.

Bit Width – maximum distance between the lateral ends of the drill bit in millimeters, measured at maximum distance from tip with use wear.

CONTINUE ONLY IF THE ARTIFACT IS A BIFACE

Artifact Plan Shape – only be recorded for complete or nearly complete artifacts, or if the shape before discard/break can be determined. Un-pictured shape types include morphic/ornamental and irregular.



Note: "Rectangular" describes a shape with four parallel sides and roughly right angles while "Quadrilateral" refers to a shape with four sides that does not qualify as rectangular.

Notches on artifacts, such as those on projectile points, are ignored when determining shape.

Artifact Cross-Section Shape – between lateral edges. Only record for complete or nearly complete artifacts, or if the shape before discard/break can be determined.

Biface Class:

- Roughout – minimal modification of a blank; flaking on margins sufficient to provide a generally ovate shape, but not necessarily one that is bifacial all around; edgeline not centered; attributes indicative of the blank morphology are present, such as cortex, detachment scar, plano-convex cross-section, and longitudinal curvature.
- Rough Percussion – inconsistent flaking, but a bifacial margin extends around the entire artifact with the occasional exception of small unifacial instances; presence of remnant blank attributes are common; scars show mixed pattern of step and feathered flake terminations.
- Fine Percussion – attention to symmetry through uniform percussion flaking; flake removals often extend across the midline of each face; edgeline is centered; remnant blank evidence is rare; scars indicate predominantly feathered flake terminations.
- Rough Pressure – pressure flaking is present on what would otherwise be a fine percussion biface; also includes small flake blanks on which pressure flaking is the only technique used, but not in a systematic or refined manner.
- Fine Pressure – pressure flaking is usually the exclusive flaking technique indicated, but some percussion scars may remain at the midline of larger bifaces; the intent to provide symmetry through systematic pressure flaking is clear.

Biface Stage describes the production stage of bifacially flaked tools:

- Stage 1 – roughly produced with a thick, possibly sinuous, margin.
- Stage 2 – percussion shaped and roughly formed.
- Stage 3 – percussion shaped and well-formed.
- Stage 4 – has late-thinning flake scars and intermittent pressure flaking.
- Stage 5 – extensively pressure flaked and represents a finished tool.

Type of Fracture or Break:

- Twisting fractures occur when the applied force is redirected through the material in a helical fashion, resulting in a somewhat sinuous break.
- Miss-hit (Outre-passe [overshot]) fractures are caused by errors during edge-to-edge or misdirected percussion flaking, resulting in a break that extends to, and cuts under, the opposing end or edge of the artifact.
- Material flaw fractures are caused by excessive force at a point of flaw in the material, producing an uneven break at or around the flaw.
- Thermal (crenated) fractures result from rapid temperature changes, resulting in sugary and irregular or sinuous breaks.
- Impact fractures are caused by direct use of the artifact end on a hard surface, usually resulting in a break along the short axis at one of the ends of the artifact.
- Radial fractures are caused by excessive force on the tool face, resulting in multiple breaks radiating from the point of contact. The subsequent tool fragment can resemble a slice of pie.
- Bending without finial fractures are caused by excessive force on the tool face, resulting in a slightly curved break along, usually, the short axis of the tool.
- Bending with finial fractures are bending fractures as defined above, but with a distinctive finial termination.

- **Bipolar** fractures are caused by two opposing forces, such as a hammer and an anvil, on opposite faces of the artifact, resulting in two setup platforms, no bulbs of percussion, and a usually flat break surface.
- **Modern** fractures are post-depositional breaks, suggested due to the freshness of the break (e.g. cattle trampling, shovel impact).

Serrated records the presence or absence of a row of notches on the artifact edges.

Reworked/maintained – presence or absence of irregular shaping of an artifact due to multiple series of flaking, flaked edges with multiple levels of use wear, residual and out-of-place artifact attributes (e.g., tang on a drill left over from previous use as a projectile point), etc.

CONTINUE ONLY IF THE ARTIFACT IS A PROJECTILE POINT

Axial Length is the length of a projectile point along its longitudinal axis, measured in millimeters.

This measurement can differ from maximum length if the projectile point has a basal notch or if the artifact is broken at an angle.

Basal Width is the maximum distance between the two lateral edges of the base, measured in millimeters.

Neck Width is the maximum distance between the apexes of both notches.

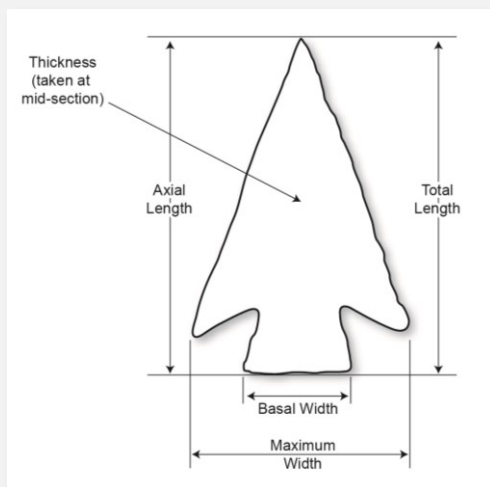
Proximal Shoulder Angle is the angle formed between the line that runs along the proximal edge of the notch and the line that both runs perpendicular to the longitudinal axis and intersects the proximal notch edge line at the longitudinal axis.

Distal Shoulder Angle is the angle formed between the line that runs along the distal edge of the notch and the line that both runs perpendicular to the longitudinal axis and intersects the distal notch edge line at the longitudinal axis.

Notch Opening Angle is the distal shoulder angle minus the proximal shoulder angle, representing the angle of the notch opening.

Maximum Width Position is the distance between the proximal end and the point of maximum width along the longitudinal axis divided by maximum length, represented as a percentage.

Stem Length is the length of the projectile point stem along the longitudinal axis.



EDGE ANALYSIS

Performed on flake tools, formed flake tools, cobble tools, or other tools with used edges.

Position - where the analyzed edge is located on the artifact. The artifact should be oriented so that the flake blank dorsal side is showing and the proximal margin is on top (away from the analyst):

- | | |
|------------------------|---------------------------------|
| ▪ <u>Proximal</u> | ▪ <u>Proximal/left lateral</u> |
| ▪ <u>Distal</u> | ▪ <u>Proximal/right lateral</u> |
| ▪ <u>Right lateral</u> | ▪ <u>Distal/left lateral</u> |
| ▪ <u>Left lateral</u> | ▪ <u>Distal/right lateral</u> |
- Semi-radial – use wear/flaking is continuous along multiple, but not all, margins.
 - Radial – use wear/flaking is continuous around all margins.
 - Break – use wear/flaking is not on an original flake margin, but occurs on a broken edge of the flake.

Surface describes which surface of the tool has use wear. The use wear can be located on the dorsal surface, ventral surface, or both dorsal and ventral surfaces of the original flake.

Edge Flaking Form records the form of intentional flaking on the analyzed edge.

- Unifacial – flake scars on a single face up to an edge.
- Bifacial – flake scars on opposing faces up to an edge.
- Alternating Unifacial – unifacial flake scars on opposing faces of same edge.
- None – No intentional flaking on the analyzed edge.

Shape -of the edge relative to the artifact: straight, convex, concave, notched, pointed or beaked, serrated, irregular, or sinuous.

Broken Edge – presence or absence of breaking on the edge.

Scavenged – presence or absence of scavenging (e.g., use wear over weathered flaking from prior use).

Grinding/polishing - indicative of working softer materials. There is full obliteration of the edge, creating almost a plateau. The edge is dulled and many types of fractures can be visible.

Micro-chipping - indicative of working softer materials. There are small flake scars on the edge that change the edge angle but not necessarily dulling the edge.

Flaking - indicative of working harder materials. These flakes scars are made through use as opposed to intentional flaking.

Stepping - indicative of working harder materials. The material is fractured from the edge to an abrupt right angle, creating uneven scars at the edge and moderate dulling.

Edge Angle – angle of the analyzed edge, measured in 5 degree increments.

Spine Angle - intersection of exterior (dorsal) and interior (ventral) flake sides, measured in 5 degree increments.

Height of Re-touch - vertical thickness from exterior (dorsal) to interior (ventral) surface.

Height of Potential Re-touch - vertical thickness at the location defined as the height that could be reached if the tool was fully retouched.

Index of Unifacial Re-touch - calculated as “**Height or Re-touch**” divided by “**Height of Potential Re-touch**,” recorded to two decimal places.

DEBITAGE ANALYSIS

Each catalogued group of debitage is separated into piles by size grade, and each size grade is given a unique entry as the debitage is analyzed.

Size Grade:

- < 1/4"
- 1/4" - 1/2"
- 1/2" - 1"
- 1" - 2"
- > 2"

Size Count records the total number of flakes in each size grade. Each flake is then assigned a flake type:

- **Primary Decortication Flakes** – more than 70% of the dorsal surface covered by cortex.
- **Secondary Decortication Flakes** – 0–70% of its dorsal surface covered by cortex.
- **Simple Interior Flakes** – percussion flakes with straight longitudinal cross-sections and dorsal surfaces with salient bulbs of force: (1) "U" shaped platforms; (2) no more than two arrises; and (3) no cortex.
- **Complex Interior Flakes** – percussion flakes with straight longitudinal cross-sections and dorsal surfaces with: (1) salient bulbs of force; (2) "U" shaped platforms; (3) more than two arrises; and (4) no cortex.
- **Bipolar Flakes** – display opposing forces of impact with distinct cones of force and compression rings.
- **Linear Flakes** – long, blade-like interior flakes that are twice as long as they are wide.
- **Early Biface Thinning Flakes** – curved longitudinal cross-sections, platform angles less than 70 degrees, and few dorsal surface arrises.
- **Late Biface Thinning Flakes** – display curved longitudinal cross-sections, thinner and with greater dorsal flake scar complexity than early biface-thinning flakes.
- **Platform Preparation Flakes** – typically result from the light percussion of a bifacial edge to prepare a flake detachment platform.
- **Pressure Flakes** – small flakes with salient bulbs of force, minute oblique platforms, and simple dorsal surfaces.
- **Platform Preparation/Pressure Flakes** – Small, rounded, with remnant tool or core margin platforms and complex dorsal surfaces.
- **Indeterminate Percussion Flakes**
- **Indeterminate Flake Fragments** – proximal, medial, interior, lateral, or distal flake margins.
- **Potlid Flakes** – small, rounded and heat-crazed flakes.
- **Shatter Flakes** – cortical or non-cortical chunky, cuboidal, or acutely angled waste with no discernable platform or bulb of percussion.

Flakes with Cortex – with outer layer, by size grade.

Flakes with Heat Treatment – heat-altered color variation or texture by size grade.

GROUND STONE ANALYSIS

Text in **bold** indicate attributes that should be recorded as separate columns in Ground Stone Analysis, including Surface Analysis. Underlined texts indicate potential values for each artifact under that particular attribute. For all attributes, the following values can be assigned where they apply: (1) Indeterminate; (2) Not applicable; (3) Not recorded; and (4) None. Incomplete measurements are designated by a negative sign (-) before the value.

Maximum Length – maximum distance between the proximal and distal ends of the artifact, in millimeters.

Maximum Width – maximum distance between the lateral ends of the artifact, in millimeters.

Maximum Thickness – maximum distance between the dorsal (exterior) and ventral (interior) faces of the artifact, in millimeters.

Type: thin [≤60 mm], thick [>60 mm], and block [≥130 mm] for millingstones, bowl, hopper, and cobble for mortars, and/or other relevant type classifications.

Artifact Plan Shape – see description and figure under Flaked Stone Artifact Plan Shape.

Artifact Cross-Section Shape – short axis in cross-section view—see description under Flaked Stone Artifact Cross-Section Shape.

Artifact Manufacture Wear Type:

- Ground – smooth with rounded peaks, usually caused by horizontal movement on another surface.
- Crushed – small breaks on surface usually caused by downward pressure on another surface.
- Pecked – battered surface usually caused by short-distance strokes from another hard surface.
- Pounded – highly battered surface usually caused by long-distance strokes from another hard surface.
- Flaked – flake scars on surface usually caused by angular hits from another hard surface.

Artifact Manufacture Wear Level – degree of manufacture wear, or shaping—shaped, slightly shaped, or unshaped.

Rim Thickness - in millimeters; primarily for mortars. As a standard control, this attribute should be measured three centimeters from the apex of the rim.

Cortex – presence or absence of rock cortex.

Burning – presence or absence of heat evidence.

Residue – presence or absence of residue on artifact.

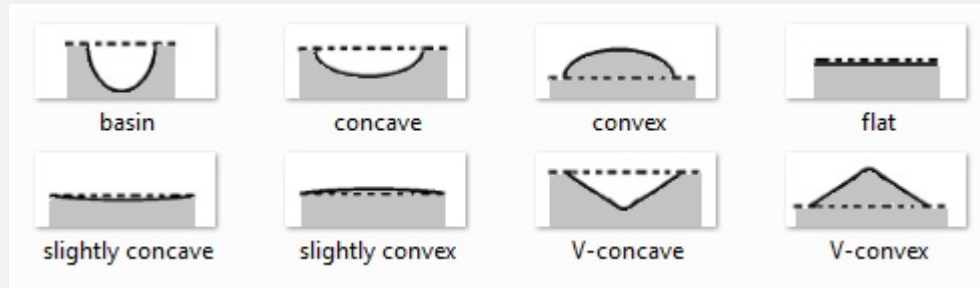
Re-working – presence or absence of re-working, usually represented as pecking.

Number of Surfaces with Use Wear – recorded as a number.

SURFACE ANALYSIS – Performed on each ground stone surface that exhibits use wear.

Use Wear Location – end, edge, base, or face.

Use Wear Shape – cross-section view of the use wear:



Note: Basin configurations are typically 30 mm or more deep.

Use Wear Type:

- Grinding – smooth surface with rounded peaks, usually caused by horizontal movement of the artifact on another surface.
- Crushing – small breaks on surface usually caused by downward pressure of the artifact on another surface.
- Pecking – battered surface usually caused by short-distance strokes on another hard surface.
- Pounding – highly battered surface usually caused by long-distance strokes on another hard surface.

Use Wear Level – light, moderate, heavy, or worn out.

Use Wear Length – maximum length of the use wear, in millimeters.

Use Wear Width – maximum width of the use wear, in millimeters, perpendicular to the use wear length.

Use Wear Height/Depth – maximum height or depth of the use wear, in millimeters; recorded as a positive value for all complete use wear configurations, whether concave or convex.

Use Wear Striations – direction of use wear, as marked by striations: circular, parallel to the long axis of the use wear, parallel to the short axis of the use wear, irregular, or not present.

Use Wear Polish – Smooth, Incipient, Present, or None.