

DR Item 2018346 to accompany Johnston, S.M., Kylander-Clark, A.R.C., and Chapman, A.D., 2018, Detrital zircon geochronology and evolution of the Nacimiento block late Mesozoic forearc basin, central California coast, *in* Ingersoll, R.V., Lawton, T.F., and Graham, S.A., eds., *Tectonics, Sedimentary Basins, and Provenance: A Celebration of William R. Dickinson's Career*: Geological Society of America Special Paper 540, [https://doi.org/10.1130/2018.2540\(17\)](https://doi.org/10.1130/2018.2540(17)).

**Appendix DR1:** notes, reference lists, and samples used to create source strata detrital zircon composite probability density plots in Figure 6 and Figure 8.

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**Figure 6 notes, reference lists, and samples.**

Jurassic composite:

- 1) Jr foreland basin deposits
  - Dickinson et al., 2008a: Morrison Formation (CP13, CP19, CP21, CP25, CP29, CP35, CP36, CP41, CP49, CP52).
- 2) Jr arc-flank and rift deposits:
  - Dickinson and Gehrels, 2009: Mt Wrightson Formation (CP2).
  - Dickinson, et al., 2009: Cintura Formation of the Bisbee Group (KBCR).
  - Barth, et al., 2004: basal McCoy Mountains Formation (MC7, MC9).
  - Reis, J.H., 2009: Slumgullion Formation (KE10, KE10A, KE44, KE42, KE37).
  - Mauel et al., 2011: Morita and Cucurpe Formations (DM9-4-3, DM-1-6-8).
- 3) Lower–Middle Jr eolianites and associated fluvial deposits
  - Dickinson and Gehrels, 2009: San Rafael Group (CP15, CP16, CP54, CP12, CP43, CP45, Jenw, CP24), Glen Canyon Group (CP30, CP37, CP10, Jnnw, CP3, CP1, Jwnw, CP31, DOL).

Triassic composite:

- 1) Triassic miogeocline overlap sediments
  - Dickinson and Gehrels, 2008b: Chinle Formation and equivalents (CP17, CP26, CP42, CP44, CP47, CP48, CP5, CP50, CP6, Currie, TRU).
  - Dickinson and Gehrels, 2008b: Chinle and Moenkopi Formation southern feeder rivers (CP11, CP18, CP20, CP38, CP8).

Upper Paleozoic composite:

- 1) Mississippian–Permian shelf sediments
  - Gehrels and Dickinson, 2011: Grand Canyon stratigraphy (Surprise Canyon 1, 2, 3, Watahomigi, Manacacha, Wescogame, Esplanade 1, 2, 3, Lower Hermit, Hermit, Upper Hermit, Coconino1, 2, Toroweap 1, 2, Kaibab 1, 2).

Lower Paleozoic composite:

- 1) Cambrian–Devonian shelf sediments
  - Gehrels et al., 2011: Grand Canyon stratigraphy (Tapeats 1, 2, Lower Bright Angel, Bright Angel, Upper Bright Angel, Temple Butte 1, 2, 3).

Paleozoic allochthons

- 1) Golconda allochthon
  - Riley, et al., 2000: Schoonover Q, Schoonover V, Jory Fm., Pumpernickel Fm.
- 2) Roberts Mountain allochthon
  - Gehrels and Dickinson, 1995: Harmony Fm., Valmy Fm.
  - Gehrels, et al., 2000: Harmony LC#2, Harmony LC#3, Harmony LC#4, Harmony Elbow Canyon, Harmony (Harmony Canyon), Harmony Hot Springs, Lower Vini,

Lower Vin #2, Upper Vini, McAfee Quartzite, Snow Canyon Formation, Elder Sandstone, Slavern Chert.

Neoproterozoic–Cambrian outer shelf

1) White–Inyo Range sediments

- Chapman, et al., 2015: Poleta Formation (12WI1), Harkless Formation (12WI2), Deep Springs Formation (12WI3), Wyman Formation (12WI4, 12WI5, WM208, WM170), Reed Dolomite (12WI6), Campito Formation (11IY1, 568, WM611, WM101).

Neoproterozoic inner shelf

1) Death Valley sequence: Because some parts of the section were more heavily sampled in the Mahon, one or two representative samples from each formation were chosen from this dataset in order to avoid dilution of undersampled sections in the composite probability density function.

- Schoenborn, et al., 2012: Stirling Quartzite (NR9, NR30), Johnnie Formation (J39A, J14A).
- Mahon et al., 2014: Noonday Dolomite (2CD11, 4CD13), Kingston Peak (4RM11), Beck Springs Dolomite (11RMSS5) Horse Thief Springs Formation (5CD11, 12RMSS6, 12RMSS5), Crystal Spring Formation (K03DV04).

**Figure 8 notes, reference lists, and samples.**

All data sets were filtered for zircon >300 Ma for the construction of these plots.

1) Blue Mountains:

- LaMaskin, et al., 2011: Snowshoe Fm. (06135), Lonesome Fm. (07016, IZEE7, IZEE9).

2) Sacramento Valley

- Surpless, et al., 2002: Stony Creek petrofacies at Cache Creek (GV64).
- Surpless, et al., 2006: Stony Creek petrofacies (JC14, JC12, JC20, JC17, JC18, JC19, KDS108).

3) Peninsular Ranges:

- Kimbrough, et al., 2014: Eugenia Fm. (V0510, V0520), Peñasquito Fm. (LUSARDICYN).

4) Basal McCoy Mountains:

- Barth, et al., 2004: McCoy Mountains Fm. (MC7, MC9).

5) Lower Gravelly Flat:

- Martin and Clemens-Knott, 2015: Gravelly Flat Formation (GVG103).

6) Colorado Plateau Jurassic composite:

- Dickinson and Gehrels, 2008a: Morrison Formation (CP13, CP19, CP21, CP25, CP29, CP35, CP36, CP41, CP49, CP52).
- Dickinson and Gehrels, 2009: Mt Wrightson Formation (CP2).
- Dickinson, et al., 2009: Cintura Formation of the Bisbee Group (KBCR).
- Barth, et al., 2004: basal McCoy Mountains Formation (MC7, MC9).
- Reis, J.H., 2009: Slumgullion Formation (KE10, KE10A, KE44, KE42, KE37).
- Mauel et al., 2011: Morita and Cucurpe Formations (DM9-4-3, DM-1-6-8).

- Dickinson and Gehrels, 2009: San Rafael Group (CP15, CP16, CP54, CP12, CP43, CP45, Jenw, CP24), Glen Canyon Group (CP30, CP37, CP10, Jnnw, CP3, CP1, Jwnw, CP31, DOL).
- 7) Neoproterozoic inner shelf composite: Because some parts of the section were more heavily sampled in the Mahon, one or two representative samples from each formation were chosen from this dataset in order to avoid dilution of undersampled sections in the composite cumulative probability plot.
- Schoenborn, et al., 2012: Stirling Quartzite (NR9, NR30), Johnnie Formation (J39A, J14A).
  - Mahon et al., 2014: Noonday Dolomite (2CD11, 4CD13), Kingston Peak (4RM11), Beck Springs Dolomite (11RMSS5) Horse Thief Springs Formation (5CD11, 12RMSS6, 12RMSS5), Crystal Spring Formation (K03DV04).

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Figure DR1. U–Pb isotope and age data from zircons extracted from granitic conglomerate clast SR-p3.

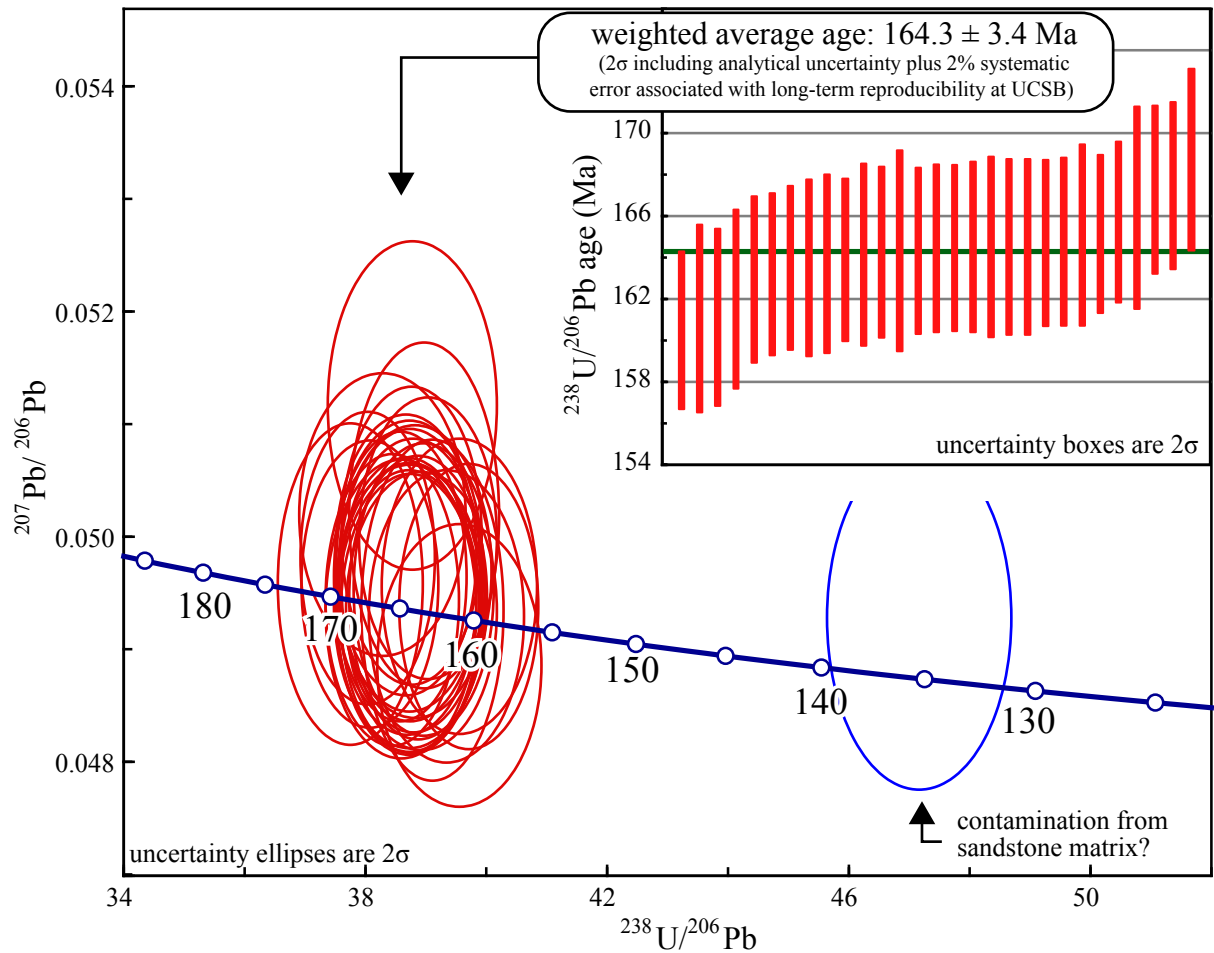


Table DR1: Nacimiento sandstone zircon-U-Pb

Table DR2: Nacimiento conglomerate-U-Pb

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Table DR3: Sandstone petrographic data from Nacimeinto forearc sandstones.

Sample	Age	Detrital Grain Counts																		QtFL modes			Ratios	
		Kfs	Pl	Qm	Qc	Lq	Lv	Lm	Ls	Mi	Mtx	Cal	Opq	Ep	Zrn	Cpx	Anm	Alt	Tot	Tc	Qt	F	L	P/F
CA-A4	151	0	22	32	2	9	65	19	0	4	12	41	1						207	154	28.9	14.8	56.4	100.0
CA-A3	149	4	15	17	14	24	62	26	7	3	28	0	0						200	172	32.5	11.2	56.2	78.9
DF-A	140	0	21	15	23	9	92	30	5	2	6								203	197	24.1	10.8	65.1	100.0
SR-13C	140	0	11	24	13	4	71	24	12	1	22	23	2	3	1	1			212	167	25.8	6.9	67.3	100.0
DF-B	139	9	10	26	20	2	110	22	2	2	8	0	6						217	209	23.9	9.5	66.7	52.6
SR-11C	138	0	10	25	23	2	112	25	25	1	14		3						240	226	22.5	4.5	73.0	100.0
SR-11F	138	0	20	28	13	8	125	12	5	1	13	13	1	1			4		244	214	23.2	9.5	67.3	100.0
SR-11D	138	1	22	29	13	0	102	23	12	4	17	5	5				11		244	211	20.8	11.4	67.8	95.7
SR-11G	137	0	21	26	6	12	125	13	4	2	9	13					1		232	209	21.3	10.1	68.6	100.0
SR-13A	109	2	37	20	9	0	129	10	1	1	4	12	3			4			232	216	13.9	18.8	67.3	94.9
SR-11B	109	2	41	23	11	0	113	9	5	4	53	72	13	6					352	227	16.7	21.1	62.3	95.3
SR-11H	108	0	17	9	4	2	205	1	0	0	10	6					4		258	238	6.3	7.1	86.6	100.0
SR-11A	107	0	43	23	10	2	118	6	14	0	111	30	2	1			17		377	236	16.2	19.9	63.9	100.0
SR-16G	103	2	34	29	4	0	133	13	3	6	5	24	5	7		3			268	239	15.1	16.5	68.3	94.4
SR-16C	101	0	32	22	1	0	162	9	1	3	30	0	3				1		264	233	10.1	14.1	75.8	100.0
OC-18A	100	1	55	31	2	0	112	14	0	1	2	102	5	1		5			331	227	15.3	26.0	58.6	98.2
SR-16B	97	1	32	23	7	2	139	6	4	2	10	0	1	2		2	1		232	221	15.0	15.4	69.6	97.0
SR-16F	96	26	50	82	0	1	30	21	7	12	2	22	1						254	230	38.2	35.0	26.7	65.8
SR-16E	93	26	56	74	0	0	43	7	3	15	0	85	5				1		315	229	35.4	39.2	25.4	68.3
A-13B	91	36	31	48	6	2	48	22	4	2	11		1		1				212	201	28.4	34.0	37.6	46.3
A-13C	87	25	21	57	0	0	26	32	1	29	28	0	2		1				222	194	35.2	28.4	36.4	45.7
SR-16D	85	26	61	79	0	0	33	23	2	17	15	1	2						259	243	35.3	38.8	25.9	70.1

Abbreviations: Kfs—K-feldspar, Pl—Plagioclase feldspar, Qm—monocrystalline quartz, Qc—polycrystalline quartz (chert), Lq—polycrystalline quartz (quartzite), Lv—lithic volcanic, Lm—lithic metamorphic, Ls—lithic sedimentary, Mi—mica, Mtx—undifferentiated matrix, Cal—calcite, Opq—opaque phase, Ep—epidote, Zrn—zircon, Cpx—clinopyroxene, Anm—phase with anomalous extinction, Alt—phase altered past optical recognition, Tot—total counts, Tc—total non-matrix clast counts, Qt—(Qm+Qc+Lq)/(total QtFL), F—(Kfs+Pl)/(total QtFL), L—(Lv+Lm+Ls)/(total QtFL), P/F—Pl/(Kfs+Pl).