

# GSA Data Repository 2016307

## The end of the Ediacaran: two new exceptionally preserved body fossil assemblages from Mt. Dunfee, Nevada

**Emily F. Smith<sup>1</sup>, Nelson L.L.<sup>2</sup>, Strange, M.A.<sup>3</sup>, Eyster, A.E.<sup>2</sup>, Rowland, S.M.<sup>3</sup>, Schrag, D.P.<sup>2</sup>, and Macdonald, F.A.<sup>2</sup>**

<sup>1</sup>*Department of Paleobiology, Smithsonian Institution, PO Box 37012, MRC 121, Washington, DC 20013-7012, USA*

<sup>2</sup>*Department of Earth and Planetary Sciences, Harvard University, 20 Oxford Street, Cambridge, Massachusetts 02138, USA*

<sup>3</sup>*Department of Geoscience, University of Nevada, Las Vegas, 4505 S. Maryland Parkway, Las Vegas, Nevada 89154-4010, USA*

### METHODS

#### **Geologic mapping, sedimentology, $\delta^{13}\text{C}$ chemostratigraphy, and biostratigraphy**

Geologic mapping of the Mt. Dunfee area was done on the Gold Point Quadrangle 1:24,000 topographic map, southeast of Gold Point, NV. Distinctive marker beds were used for mapping purposes and allowed for the construction of the composite stratigraphic section. A composite section of the upper Reed Dolomite through the Esmeralda Member (Mb) of the Deep Spring Formation (Fm) was constructed from seven individual measured sections (Fig. 1C). Section E1421 (locality is marked on geologic map in Fig. 1B and shown in Fig. 1C) of the Esmeralda Mb of the Deep Spring Fm is the same section as the one described by Rowland et al. (2008) and sampled at low resolution for  $\delta^{13}\text{C}$  chemostratigraphy by Corsetti and Kaufman

(1994). The other six sections presented here include previously undocumented strata with new chemostratigraphy. While measuring stratigraphic sections, carbonate samples were collected at a 0.3-2 m resolution. Paleontological data presented here were collected while mapping and measuring section, and placed into a stratigraphic context.

Carbon ( $\delta^{13}\text{C}$ ) and oxygen ( $\delta^{18}\text{O}$ ) isotopic measurements were obtained on 613 samples from seven sections of the uppermost Reed Fm through Deep Spring Fm in Esmeralda County, NV. Samples were micro-drilled along individual laminations, where visible, to obtain 5 to 20 mg of powder. Veins, fractures, and siliciclastic-rich areas were avoided. Carbonate  $\delta^{13}\text{C}$  and  $\delta^{18}\text{O}$  data were acquired simultaneously on a VG Optima dual inlet mass spectrometer at the Harvard University Laboratory for Geochemical Oceanography. Carbonate samples were reacted with orthophosphoric acid using a VG Isocarb preparation device, which includes a common acid bath with a magnetic stirrer. Approximately 1 mg of micro-drilled samples was reacted in the bath at 90°C. Evolved CO<sub>2</sub> was collected cryogenically and analyzed using an in-house reference gas. Potential memory effect resulting from the common acid-bath system was minimized by increasing the reaction time for dolomite samples. Memory effect is estimated at <0.1‰ based on variability of standards run after dolomite samples. Standard deviation ( $1\sigma$ ) from standards was better than  $\pm 0.1\text{\textperthousand}$  for both  $\delta^{13}\text{C}$  and  $\delta^{18}\text{O}$ . Carbonate  $\delta^{13}\text{C}$  and  $\delta^{18}\text{O}$  isotopic results are reported in per mil (‰) notation relative to V-PDB (Vienna-Pee Dee Belemnite) by using an in-house Cararra Marble standard that was calibrated against several NBS carbonate standards and cross-calibrated with other laboratories.

The strata at Mt. Dunfee contain well-preserved, low-grade carbonates that have been affected by brittle deformation. The  $\delta^{13}\text{C}$  values are reproducible regionally, including in equivalent strata in the White-Inyo Mountains, and in late Ediacaran strata globally.

Additionally, no strong covariance between the  $\delta^{13}\text{C}$  and  $\delta^{18}\text{O}$  values exists. For these reasons, the  $\delta^{13}\text{C}$  values reported herein are interpreted to reflect the primary isotopic composition of seawater at the time of deposition and the  $\delta^{18}\text{O}$  values are considered to reflect the isotopic composition of diagenetic fluids.

## REFERENCES CITED

- Corsetti, F. A., and Kaufman, A. J., 1994, Chemostratigraphy of Neoproterozoic-Cambrian units, White-Inyo Region, eastern California and western Nevada: implications for global correlation and faunal distribution: *Palaeos*, p. 211-219.
- Rowland, S. M., Oliver, L. K., and Hicks, M., 2008, Ediacaran and early Cambrian reefs of Esmeralda County, Nevada: Non-congruent communities within congruent ecosystems across the Neoproterozoic–Paleozoic boundary. In Duebendorfer, E.M., and Smith E.I., eds., *Field Guide to Plutons, Volcanoes, Faults, Reefs, Dinosaurs, and Possible Glaciation in Selected Areas of Arizona, California, and Nevada*: Geological Society of America Field Guide 11, p. 83-100.

**DATA TABLE DR1**

<b>m</b>	<b><math>\delta^{13}\text{C}</math></b>	<b><math>\delta^{18}\text{O}</math></b>	<b>Section</b>	<b>Formation</b>	<b>Member</b>
216	-3.62	-15.99	E1421	DSF	Esmeralda
215	-3.40	-10.94	E1421	DSF	Esmeralda
214	-2.82	-12.98	E1421	DSF	Esmeralda
213	-2.75	-14.69	E1421	DSF	Esmeralda
212.5	-2.49	-11.22	E1421	DSF	Esmeralda
212	-3.06	-19.39	E1421	DSF	Esmeralda
211.5	-2.30	-10.55	E1421	DSF	Esmeralda
211	-2.20	-10.39	E1421	DSF	Esmeralda
210.5	-2.56	-13.49	E1421	DSF	Esmeralda
210	-2.86	-13.23	E1421	DSF	Esmeralda
209.5	-2.64	-17.47	E1421	DSF	Esmeralda
209	-2.32	-13.35	E1421	DSF	Esmeralda
208	-2.78	-16.64	E1421	DSF	Esmeralda
207.5	-2.50	-16.64	E1421	DSF	Esmeralda
207	-2.79	-18.53	E1421	DSF	Esmeralda
206.5	-2.85	-15.03	E1421	DSF	Esmeralda
206	-2.32	-15.26	E1421	DSF	Esmeralda
205.5	-2.42	-14.71	E1421	DSF	Esmeralda
204.5	-2.08	-14.87	E1421	DSF	Esmeralda
204.5	-2.16	-14.88	E1421	DSF	Esmeralda
204	-2.15	-13.18	E1421	DSF	Esmeralda
203.5	-2.54	-20.38	E1421	DSF	Esmeralda
203	-2.76	-21.95	E1421	DSF	Esmeralda
202.5	-2.86	-21.11	E1421	DSF	Esmeralda
202	-2.41	-16.30	E1421	DSF	Esmeralda
201.5	-2.12	-14.53	E1421	DSF	Esmeralda
201	-2.61	-22.74	E1421	DSF	Esmeralda
200.5	-2.37	-18.11	E1421	DSF	Esmeralda
200	-2.23	-16.23	E1421	DSF	Esmeralda
199.7	-2.26	-16.67	E1421	DSF	Esmeralda
199.4	-2.44	-19.69	E1421	DSF	Esmeralda
198	-2.15	-15.47	E1421	DSF	Esmeralda
197.6	-2.15	-15.84	E1421	DSF	Esmeralda
197	-2.36	-14.09	E1421	DSF	Esmeralda

196.4	-2.28	-11.17	E1421	DSF	Esmeralda
196	-2.42	-9.11	E1421	DSF	Esmeralda
195.6	-2.62	-9.89	E1421	DSF	Esmeralda
194.6	-2.36	-11.57	E1421	DSF	Esmeralda
93.4	-5.80	-16.76	E1421	DSF	Esmeralda
93.6	-5.85	-15.08	E1421	DSF	Esmeralda
94	-6.42	-18.06	E1421	DSF	Esmeralda
94.5	-6.41	-15.96	E1421	DSF	Esmeralda
95	-6.43	-18.20	E1421	DSF	Esmeralda
95.5	-6.38	-17.04	E1421	DSF	Esmeralda
95.8	-6.81	-17.06	E1421	DSF	Esmeralda
63.8	-4.91	-11.93	E1421	DSF	Esmeralda
64	-6.35	-14.06	E1421	DSF	Esmeralda
64.8	-6.17	-12.48	E1421	DSF	Esmeralda
65	-6.01	-16.88	E1421	DSF	Esmeralda
65.5	-5.72	-17.43	E1421	DSF	Esmeralda
66	-5.56	-15.62	E1421	DSF	Esmeralda
66.5	-5.24	-14.70	E1421	DSF	Esmeralda
67	-5.00	-15.94	E1421	DSF	Esmeralda
67.2	-4.39	-16.62	E1421	DSF	Esmeralda
67.6	-4.38	-16.89	E1421	DSF	Esmeralda
68.1	-3.57	-12.79	E1421	DSF	Esmeralda
68.3	-3.06	-13.15	E1421	DSF	Esmeralda
68.5	-3.95	-16.74	E1421	DSF	Esmeralda
68.7	-4.27	-16.52	E1421	DSF	Esmeralda
69	-3.18	-16.97	E1421	DSF	Esmeralda
69.3	-3.62	-16.31	E1421	DSF	Esmeralda
69.5	-4.36	-17.08	E1421	DSF	Esmeralda
69.7	-5.09	-16.98	E1421	DSF	Esmeralda
69.9	-4.94	-16.32	E1421	DSF	Esmeralda
70	-4.97	-15.70	E1421	DSF	Esmeralda
70.5	-4.59	-15.89	E1421	DSF	Esmeralda
70.8	-6.22	-16.94	E1421	DSF	Esmeralda
76.7	-5.34	-16.50	E1421	DSF	Esmeralda
77	-5.24	-16.72	E1421	DSF	Esmeralda
77.3	-3.89	-15.37	E1421	DSF	Esmeralda
77.5	-2.54	-16.10	E1421	DSF	Esmeralda
77.8	-3.54	-16.31	E1421	DSF	Esmeralda
78	-2.09	-16.05	E1421	DSF	Esmeralda

78.3	-2.57	-16.46	E1421	DSF	Esmeralda
78.6	-4.11	-16.56	E1421	DSF	Esmeralda
78.8	-4.25	-16.47	E1421	DSF	Esmeralda
79	-4.45	-16.56	E1421	DSF	Esmeralda
79.3	-3.93	-15.84	E1421	DSF	Esmeralda
79.7	-3.66	-17.01	E1421	DSF	Esmeralda
97.3	-7.14	-17.98	E1421	DSF	Esmeralda
102.6	-6.55	-17.45	E1421	DSF	Esmeralda
103.2	-6.00	-13.46	E1421	DSF	Esmeralda
104	-5.46	-13.68	E1421	DSF	Esmeralda
105.6	-6.84	-17.67	E1421	DSF	Esmeralda
105.6	-6.85	-17.66	E1421	DSF	Esmeralda
106	-7.42	-18.22	E1421	DSF	Esmeralda
107	-8.16	-18.00	E1421	DSF	Esmeralda
110.6	-6.38	-16.61	E1421	DSF	Esmeralda
111.1	-5.81	-16.17	E1421	DSF	Esmeralda
111.5	-7.24	-17.12	E1421	DSF	Esmeralda
111.5	-7.24	-17.11	E1421	DSF	Esmeralda
112	-9.47	-23.67	E1421	DSF	Esmeralda
112.5	-7.22	-17.16	E1421	DSF	Esmeralda
113	-6.55	-17.34	E1421	DSF	Esmeralda
116	-6.73	-17.35	E1421	DSF	Esmeralda
117	-6.17	-17.12	E1421	DSF	Esmeralda
117.5	-6.61	-17.23	E1421	DSF	Esmeralda
118	-6.57	-16.89	E1421	DSF	Esmeralda
118.5	-6.35	-15.16	E1421	DSF	Esmeralda
119	-6.76	-15.76	E1421	DSF	Esmeralda
119.5	-6.01	-16.06	E1421	DSF	Esmeralda
120	-6.44	-16.83	E1421	DSF	Esmeralda
121.7	-3.08	-9.68	E1421	DSF	Esmeralda
122.7	-6.50	-16.17	E1421	DSF	Esmeralda
123.3	-6.44	-14.89	E1421	DSF	Esmeralda
123.8	-4.23	-15.19	E1421	DSF	Esmeralda
80	-4.00	-15.85	E1421	DSF	Esmeralda
80.2	-2.74	-16.18	E1421	DSF	Esmeralda
80.4	-4.03	-16.11	E1421	DSF	Esmeralda
80.7	-4.04	-16.28	E1421	DSF	Esmeralda
81	-3.69	-16.16	E1421	DSF	Esmeralda
81.6	-3.81	-16.53	E1421	DSF	Esmeralda

82	-3.40	-12.23	E1421	DSF	Esmeralda
82.3	-4.55	-15.98	E1421	DSF	Esmeralda
82.5	-4.35	-15.72	E1421	DSF	Esmeralda
82.7	-4.69	-16.66	E1421	DSF	Esmeralda
83	-4.33	-16.00	E1421	DSF	Esmeralda
85	-5.90	-15.75	E1421	DSF	Esmeralda
92.6	-5.49	-18.11	E1421	DSF	Esmeralda
93	-5.72	-18.54	E1421	DSF	Esmeralda
151.9	-3.92	-14.18	E1421	DSF	Esmeralda
162	-1.38	-12.06	E1421	DSF	Esmeralda
163.5	0.04	-13.48	E1421	DSF	Esmeralda
194	-2.50	-12.75	E1421	DSF	Esmeralda
164.5	-0.71	-11.31	E1421	DSF	Esmeralda
166	-1.09	-12.02	E1421	DSF	Esmeralda
167	-1.95	-13.46	E1421	DSF	Esmeralda
218.5	-2.30	-7.62	E1421	DSF	Esmeralda
124.7	-6.75	-14.01	E1421	DSF	Esmeralda
126.5	-6.73	-16.82	E1421	DSF	Esmeralda
325	0.62	-7.83	E1421	DSF	Esmeralda
324	0.53	-9.56	E1421	DSF	Esmeralda
323	0.57	-9.57	E1421	DSF	Esmeralda
322	0.55	-9.36	E1421	DSF	Esmeralda
321	0.51	-8.53	E1421	DSF	Esmeralda
320	0.31	-9.96	E1421	DSF	Esmeralda
319.2	-1.25	-6.22	E1421	DSF	Esmeralda
319	0.29	-9.23	E1421	DSF	Esmeralda
318	0.58	-10.56	E1421	DSF	Esmeralda
317	0.69	-10.00	E1421	DSF	Esmeralda
315	1.00	-10.12	E1421	DSF	Esmeralda
314	0.89	-10.46	E1421	DSF	Esmeralda
313	0.87	-9.64	E1421	DSF	Esmeralda
312	0.83	-10.06	E1421	DSF	Esmeralda
311	0.86	-10.05	E1421	DSF	Esmeralda
310	0.85	-9.39	E1421	DSF	Esmeralda
147.5	-3.45	-12.27	E1421	DSF	Esmeralda
148	-3.53	-12.15	E1421	DSF	Esmeralda
148.5	-3.45	-11.27	E1421	DSF	Esmeralda
149.8	-4.64	-12.59	E1421	DSF	Esmeralda
150.6	-3.92	-14.66	E1421	DSF	Esmeralda

151	-3.35	-13.48	E1421	DSF	Esmeralda
151.5	-3.50	-11.27	E1421	DSF	Esmeralda
161.4	-1.30	-13.49	E1421	DSF	Esmeralda
162.5	0.12	-14.43	E1421	DSF	Esmeralda
166.5	0.15	-14.51	E1421	DSF	Esmeralda
168.5	-2.50	-12.54	E1421	DSF	Esmeralda
169	-1.34	-13.32	E1421	DSF	Esmeralda
170	-4.57	-13.07	E1421	DSF	Esmeralda
170.5	-1.63	-13.32	E1421	DSF	Esmeralda
171	-1.07	-11.93	E1421	DSF	Esmeralda
173.4	0.85	-14.23	E1421	DSF	Esmeralda
176.3	-0.13	-12.59	E1421	DSF	Esmeralda
308	0.84	-9.22	E1421	DSF	Esmeralda
307	0.72	-10.19	E1421	DSF	Esmeralda
306	0.82	-9.29	E1421	DSF	Esmeralda
305	0.74	-8.36	E1421	DSF	Esmeralda
304.4	1.19	-6.06	E1421	DSF	Esmeralda
143.5	-3.19	-11.97	E1421	DSF	Esmeralda
144	-3.66	-9.48	E1421	DSF	Esmeralda
144.5	-3.45	-9.11	E1421	DSF	Esmeralda
145	-3.52	-12.74	E1421	DSF	Esmeralda
145.5	-3.34	-11.87	E1421	DSF	Esmeralda
146	-3.69	-12.49	E1421	DSF	Esmeralda
146.5	-3.66	-12.33	E1421	DSF	Esmeralda
147	-3.18	-11.45	E1421	DSF	Esmeralda
128.6	-4.58	-14.96	E1421	DSF	Esmeralda
129	-4.58	-16.00	E1421	DSF	Esmeralda
129.5	-4.36	-13.38	E1421	DSF	Esmeralda
131.4	-4.47	-16.91	E1421	DSF	Esmeralda
132.1	-3.32	-13.83	E1421	DSF	Esmeralda
133.5	-2.95	-18.69	E1421	DSF	Esmeralda
134	-2.97	-17.03	E1421	DSF	Esmeralda
134.4	-3.46	-18.01	E1421	DSF	Esmeralda
135.5	-3.37	-15.69	E1421	DSF	Esmeralda
136	-3.26	-19.39	E1421	DSF	Esmeralda
136.5	-3.58	-15.67	E1421	DSF	Esmeralda
137	-3.65	-16.89	E1421	DSF	Esmeralda
137.5	-3.01	-13.52	E1421	DSF	Esmeralda
138	-3.29	-13.25	E1421	DSF	Esmeralda

138.8	-2.63	-11.66	E1421	DSF	Esmeralda
139.5	-2.92	-13.87	E1421	DSF	Esmeralda
140	-1.90	-10.86	E1421	DSF	Esmeralda
140.5	-2.62	-10.04	E1421	DSF	Esmeralda
141	-3.16	-11.23	E1421	DSF	Esmeralda
141.5	-3.35	-12.65	E1421	DSF	Esmeralda
142	-3.70	-12.48	E1421	DSF	Esmeralda
142.5	-3.42	-12.48	E1421	DSF	Esmeralda
143	-3.61	-12.53	E1421	DSF	Esmeralda
179.5	0.02	-11.56	E1421	DSF	Esmeralda
180	0.64	-10.92	E1421	DSF	Esmeralda
180.4	0.68	-12.02	E1421	DSF	Esmeralda
181.7	1.37	-10.71	E1421	DSF	Esmeralda
182	-0.35	-11.51	E1421	DSF	Esmeralda
182.4	-0.27	-12.37	E1421	DSF	Esmeralda
182.7	-3.10	-12.14	E1421	DSF	Esmeralda
183	-0.27	-11.79	E1421	DSF	Esmeralda
183.3	-0.88	-9.50	E1421	DSF	Esmeralda
183.7	-0.22	-10.54	E1421	DSF	Esmeralda
184	-0.95	-12.70	E1421	DSF	Esmeralda
184.4	-1.39	-12.02	E1421	DSF	Esmeralda
184.7	-1.40	-11.51	E1421	DSF	Esmeralda
185	-1.44	-13.82	E1421	DSF	Esmeralda
185.3	-2.82	-17.00	E1421	DSF	Esmeralda
188	-1.48	-13.42	E1421	DSF	Esmeralda
188.3	-3.56	-11.91	E1421	DSF	Esmeralda
188.5	-1.83	-13.30	E1421	DSF	Esmeralda
189	-3.32	-17.78	E1421	DSF	Esmeralda
191.4	-2.80	-16.48	E1421	DSF	Esmeralda
192	-2.82	-14.87	E1421	DSF	Esmeralda
192.2	-2.55	-16.53	E1421	DSF	Esmeralda
193.3	-2.50	-17.06	E1421	DSF	Esmeralda
176.6	-0.24	-9.95	E1421	DSF	Esmeralda
176.9	0.38	-11.55	E1421	DSF	Esmeralda
177.5	0.39	-12.30	E1421	DSF	Esmeralda
177.7	-0.04	-12.06	E1421	DSF	Esmeralda
177.9	-0.32	-11.16	E1421	DSF	Esmeralda
179.1	-1.01	-12.15	E1421	DSF	Esmeralda
0.3	-2.97	-16.39	E1426	DSF	Esmeralda

0.6	-2.89	-15.64	E1426	DSF	Esmeralda
1	-3.21	-13.15	E1426	DSF	Esmeralda
1.6	-3.05	-16.65	E1426	DSF	Esmeralda
2	-2.98	-12.88	E1426	DSF	Esmeralda
2.5	-3.19	-16.33	E1426	DSF	Esmeralda
3.1	-3.03	-15.79	E1426	DSF	Esmeralda
3.5	-2.92	-12.25	E1426	DSF	Esmeralda
4	-2.13	-12.67	E1426	DSF	Esmeralda
4.5	-2.94	-18.44	E1426	DSF	Esmeralda
5	-2.73	-17.87	E1426	DSF	Esmeralda
6	-2.85	-14.18	E1426	DSF	Esmeralda
6.5	-3.01	-17.30	E1426	DSF	Esmeralda
7	-3.02	-13.03	E1426	DSF	Esmeralda
7.9	-3.24	-19.40	E1426	DSF	Esmeralda
8.5	-2.82	-15.50	E1426	DSF	Esmeralda
9	-2.50	-12.87	E1426	DSF	Esmeralda
9.5	-2.94	-18.89	E1426	DSF	Esmeralda
10	-2.61	-22.02	E1426	DSF	Esmeralda
10.5	-2.94	-20.95	E1426	DSF	Esmeralda
11	-2.63	-17.09	E1426	DSF	Esmeralda
11.3	-2.11	-13.29	E1426	DSF	Esmeralda
12.2	-2.65	-19.35	E1426	DSF	Esmeralda
12.5	-3.09	-19.86	E1426	DSF	Esmeralda
13	-2.94	-19.43	E1426	DSF	Esmeralda
13.5	-2.78	-18.72	E1426	DSF	Esmeralda
14	-3.00	-20.04	E1426	DSF	Esmeralda
14.5	-2.96	-14.63	E1426	DSF	Esmeralda
15	-2.35	-15.53	E1426	DSF	Esmeralda
15.5	-3.09	-14.94	E1426	DSF	Esmeralda
16	-2.34	-14.80	E1426	DSF	Esmeralda
16.4	-3.21	-24.45	E1426	DSF	Esmeralda
17	-2.32	-24.96	E1426	DSF	Esmeralda
17.5	-3.35	-14.40	E1426	DSF	Esmeralda
18	-2.60	-14.29	E1426	DSF	Esmeralda
18.5	-2.38	-11.74	E1426	DSF	Esmeralda
19	-2.51	-15.95	E1426	DSF	Esmeralda
19.5	-2.67	-16.38	E1426	DSF	Esmeralda
20	-2.46	-16.70	E1426	DSF	Esmeralda
20.5	-3.04	-22.44	E1426	DSF	Esmeralda

21	-3.32	-24.39	E1426	DSF	Esmeralda
21.5	-3.01	-23.17	E1426	DSF	Esmeralda
22	-2.99	-22.24	E1426	DSF	Esmeralda
22.5	-3.24	-25.59	E1426	DSF	Esmeralda
23	-2.55	-16.29	E1426	DSF	Esmeralda
23.5	-3.17	-25.09	E1426	DSF	Esmeralda
24	-3.03	-25.31	E1426	DSF	Esmeralda
24.5	-2.47	-18.70	E1426	DSF	Esmeralda
25	-3.10	-19.57	E1426	DSF	Esmeralda
25.5	-2.72	-24.26	E1426	DSF	Esmeralda
26	-2.84	-25.18	E1426	DSF	Esmeralda
26.3	-1.45	-11.96	E1426	DSF	Esmeralda
27	-2.37	-16.17	E1426	DSF	Esmeralda
44.8	-1.11	-11.84	E1426	DSF	Esmeralda
43.5	-2.24	-14.79	E1426	DSF	Esmeralda
42	-2.34	-15.09	E1426	DSF	Esmeralda
40	-2.39	-15.04	E1426	DSF	Esmeralda
39	-2.27	-15.29	E1426	DSF	Esmeralda
38	-2.33	-15.15	E1426	DSF	Esmeralda
37	-2.47	-15.20	E1426	DSF	Esmeralda
36	-2.42	-15.47	E1426	DSF	Esmeralda
35	-2.40	-14.99	E1426	DSF	Esmeralda
34	-2.41	-15.37	E1426	DSF	Esmeralda
32.5	-2.50	-15.28	E1426	DSF	Esmeralda
32	-2.53	-15.36	E1426	DSF	Esmeralda
31	-2.42	-14.45	E1426	DSF	Esmeralda
30	-2.46	-15.38	E1426	DSF	Esmeralda
29	-2.42	-15.05	E1426	DSF	Esmeralda
28	-2.56	-15.54	E1426	DSF	Esmeralda
30	1.56	-17.96	E1425	R-DSF	Reed - Dunfee Mb
29.5	2.33	-14.08	E1425	R-DSF	Reed - Dunfee Mb
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58	2.93	-8.26	E1425	R-DSF	Reed - Dunfee Mb
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28	1.54	-14.60	E1425	R-DSF	Reed - Dunfee Mb
26.8	-0.43	-15.71	E1425	R-DSF	Reed - Dunfee Mb
25	1.36	-13.40	E1425	R-DSF	Reed - Dunfee Mb
24	2.08	-14.37	E1425	R-DSF	Reed - Dunfee Mb
23	2.09	-17.38	E1425	R-DSF	Reed - Dunfee Mb

22.3	1.59	-18.74	E1425	R-DSF	Reed - Dunfee Mb
21.7	1.87	-13.63	E1425	R-DSF	Reed - Dunfee Mb
21	1.93	-12.84	E1425	R-DSF	Reed - Dunfee Mb
20	2.05	-12.36	E1425	R-DSF	Reed - Dunfee Mb
19	1.75	-16.66	E1425	R-DSF	Reed - Dunfee Mb
18	1.62	-16.69	E1425	R-DSF	Reed - Dunfee Mb
17.2	1.22	-17.03	E1425	R-DSF	Reed - Dunfee Mb
16.5	2.18	-16.76	E1425	R-DSF	Reed - Dunfee Mb
16	2.88	-13.68	E1425	R-DSF	Reed - Dunfee Mb
15.3	3.24	-13.24	E1425	R-DSF	Reed - Dunfee Mb
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13.5	2.75	-13.42	E1425	R-DSF	Reed - Dunfee Mb
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11.7	2.40	-13.56	E1425	R-DSF	Reed - Dunfee Mb
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10.3	2.30	-15.23	E1425	R-DSF	Reed - Dunfee Mb
70	4.27	-16.13	E1425	R-DSF	Reed - Dunfee Mb
69.5	1.67	-15.50	E1425	R-DSF	Reed - Dunfee Mb
69	3.54	-18.80	E1425	R-DSF	Reed - Dunfee Mb
68.6	3.50	-18.88	E1425	R-DSF	Reed - Dunfee Mb
68	3.15	-19.77	E1425	R-DSF	Reed - Dunfee Mb
67	2.82	-19.38	E1425	R-DSF	Reed - Dunfee Mb
66	3.01	-18.76	E1425	R-DSF	Reed - Dunfee Mb
64	2.87	-18.39	E1425	R-DSF	Reed - Dunfee Mb
62.5	2.64	-13.74	E1425	R-DSF	Reed - Dunfee Mb
61.5	2.14	-14.73	E1425	R-DSF	Reed - Dunfee Mb
61	2.68	-13.34	E1425	R-DSF	Reed - Dunfee Mb
60.5	2.82	-14.47	E1425	R-DSF	Reed - Dunfee Mb
60	0.45	-9.67	E1425	R-DSF	Reed - Dunfee Mb
59.5	3.07	-10.73	E1425	R-DSF	Reed - Dunfee Mb
58.8	2.54	-10.70	E1425	R-DSF	Reed - Dunfee Mb
57	2.26	-13.66	E1425	R-DSF	Reed - Dunfee Mb
56	2.76	-14.91	E1425	R-DSF	Reed - Dunfee Mb
55.5	2.39	-11.31	E1425	R-DSF	Reed - Dunfee Mb
55	2.46	-7.73	E1425	R-DSF	Reed - Dunfee Mb
54.5	1.95	-12.77	E1425	R-DSF	Reed - Dunfee Mb
54	0.84	-13.41	E1425	R-DSF	Reed - Dunfee Mb
53	2.29	-12.54	E1425	R-DSF	Reed - Dunfee Mb
51.5	2.55	-13.56	E1425	R-DSF	Reed - Dunfee Mb

51	1.94	-8.66	E1425	R-DSF	Reed - Dunfee Mb
50.4	1.92	-9.74	E1425	R-DSF	Reed - Dunfee Mb
50	2.24	-11.36	E1425	R-DSF	Reed - Dunfee Mb
49.5	2.38	-15.14	E1425	R-DSF	Reed - Dunfee Mb
48.5	2.00	-11.09	E1425	R-DSF	Reed - Dunfee Mb
47.5	2.08	-11.19	E1425	R-DSF	Reed - Dunfee Mb
47	2.76	-13.51	E1425	R-DSF	Reed - Dunfee Mb
46.6	3.12	-10.38	E1425	R-DSF	Reed - Dunfee Mb
44.8	2.82	-14.02	E1425	R-DSF	Reed - Dunfee Mb
44	3.09	-10.30	E1425	R-DSF	Reed - Dunfee Mb
42.8	-0.94	-13.44	E1425	R-DSF	Reed - Dunfee Mb
42	3.02	-14.22	E1425	R-DSF	Reed - Dunfee Mb
41	2.08	-14.61	E1425	R-DSF	Reed - Dunfee Mb
40	3.25	-15.17	E1425	R-DSF	Reed - Dunfee Mb
39.5	1.98	-14.75	E1425	R-DSF	Reed - Dunfee Mb
38.6	3.28	-14.20	E1425	R-DSF	Reed - Dunfee Mb
38	1.06	-15.90	E1425	R-DSF	Reed - Dunfee Mb
36.5	3.25	-19.57	E1425	R-DSF	Reed - Dunfee Mb
35.9	3.22	-18.11	E1425	R-DSF	Reed - Dunfee Mb
33	1.94	-14.75	E1425	R-DSF	Reed - Dunfee Mb
32.5	1.66	-14.53	E1425	R-DSF	Reed - Dunfee Mb
32	0.89	-16.93	E1425	R-DSF	Reed - Dunfee Mb
31.6	2.39	-14.77	E1425	R-DSF	Reed - Dunfee Mb
31	1.27	-15.68	E1425	R-DSF	Reed - Dunfee Mb
30.5	1.62	-15.27	E1425	R-DSF	Reed - Dunfee Mb
9.6	2.49	-13.60	E1425	R-DSF	Reed - Dunfee Mb
8.6	2.39	-16.56	E1425	R-DSF	Reed - Dunfee Mb
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7.5	3.18	-19.45	E1425	R-DSF	Reed - Dunfee Mb
6.4	3.35	-20.44	E1425	R-DSF	Reed - Dunfee Mb
5.7	3.00	-20.20	E1425	R-DSF	Reed - Dunfee Mb
5.3	3.76	-9.15	E1425	R-DSF	Reed - Dunfee Mb
4.7	2.96	-22.56	E1425	R-DSF	Reed - Dunfee Mb
4	3.04	-12.48	E1425	R-DSF	Reed - Dunfee Mb
3.5	0.35	-9.80	E1425	R-DSF	Reed - Dunfee Mb
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1.4	2.46	-21.84	E1425	R-DSF	Reed - Dunfee Mb
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0.5	1.51	-17.57	E1425	R-DSF	Reed - Dunfee Mb

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1.4	2.51	-22.15	E1425	R-DSF	Reed - Dunfee Mb
83.5	1.47	-20.58	E1425	R-DSF	Reed - Dunfee Mb
83	2.72	-19.54	E1425	R-DSF	Reed - Dunfee Mb
82	2.56	-20.71	E1425	R-DSF	Reed - Dunfee Mb
81	2.89	-15.33	E1425	R-DSF	Reed - Dunfee Mb
79	2.84	-16.30	E1425	R-DSF	Reed - Dunfee Mb
78	2.92	-15.40	E1425	R-DSF	Reed - Dunfee Mb
77	2.92	-15.58	E1425	R-DSF	Reed - Dunfee Mb
76.5	3.11	-13.76	E1425	R-DSF	Reed - Dunfee Mb
76	2.80	-11.53	E1425	R-DSF	Reed - Dunfee Mb
75.5	3.16	-14.53	E1425	R-DSF	Reed - Dunfee Mb
75	3.20	-14.25	E1425	R-DSF	Reed - Dunfee Mb
74.5	3.07	-16.11	E1425	R-DSF	Reed - Dunfee Mb
74	3.40	-11.55	E1425	R-DSF	Reed - Dunfee Mb
73.5	3.42	-12.12	E1425	R-DSF	Reed - Dunfee Mb
73	3.68	-17.69	E1425	R-DSF	Reed - Dunfee Mb
72.5	4.08	-16.67	E1425	R-DSF	Reed - Dunfee Mb
72	3.72	-16.04	E1425	R-DSF	Reed - Dunfee Mb
71.5	3.94	-10.07	E1425	R-DSF	Reed - Dunfee Mb
71	3.60	-19.62	E1425	R-DSF	Reed - Dunfee Mb
70.5	4.14	-17.43	E1425	R-DSF	Reed - Dunfee Mb
70	4.32	-16.57	E1425	R-DSF	Reed - Dunfee Mb
69.5	1.83	-16.04	E1425	R-DSF	Reed - Dunfee Mb
69	3.51	-18.84	E1425	R-DSF	Reed - Dunfee Mb
68.6	3.50	-18.86	E1425	R-DSF	Reed - Dunfee Mb
68	3.36	-18.30	E1425	R-DSF	Reed - Dunfee Mb
67	3.09	-19.19	E1425	R-DSF	Reed - Dunfee Mb
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3.00	2.08	-12.98	E1511	DSF	Dunfee
4.00	2.77	-10.77	E1511	DSF	Dunfee
5.00	2.20	-16.53	E1511	DSF	Dunfee
6.00	1.98	-17.50	E1511	DSF	Dunfee
7.50	2.90	-18.66	E1511	DSF	Dunfee
9.00	3.69	-15.30	E1511	DSF	Dunfee
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11.00	3.33	-18.45	E1511	DSF	Dunfee

12.00	3.59	-16.72	E1511	DSF	Dunfee
13.00	3.04	-17.00	E1511	DSF	Dunfee
15.00	2.67	-14.97	E1511	DSF	Dunfee
16.00	3.14	-17.36	E1511	DSF	Dunfee
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18.00	3.00	-17.94	E1511	DSF	Dunfee
19.10	2.83	-17.57	E1511	DSF	Dunfee
20.00	3.24	-18.33	E1511	DSF	Dunfee
21.50	2.89	-17.92	E1511	DSF	Dunfee
23.00	2.71	-17.49	E1511	DSF	Dunfee
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27.00	2.34	-15.88	E1511	DSF	Dunfee
28.00	2.51	-18.46	E1511	DSF	Dunfee
29.00	2.67	-17.82	E1511	DSF	Dunfee
30.00	2.42	-16.12	E1511	DSF	Dunfee
31.00	2.32	-20.40	E1511	DSF	Dunfee
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37.00	1.89	-19.44	E1511	DSF	Dunfee
38.00	1.69	-20.04	E1511	DSF	Dunfee
39.10	1.09	-19.68	E1511	DSF	Dunfee
40.00	1.78	-20.09	E1511	DSF	Dunfee
41.00	1.87	-20.89	E1511	DSF	Dunfee
42.00	1.64	-22.46	E1511	DSF	Dunfee
43.50	1.98	-16.71	E1511	DSF	Dunfee
45.00	2.14	-16.00	E1511	DSF	Dunfee
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49.00	1.18	-18.74	E1511	DSF	Dunfee
50.00	1.81	-10.83	E1511	DSF	Dunfee
51.00	0.94	-11.85	E1511	DSF	Dunfee
52.00	-0.12	-16.52	E1511	DSF	Dunfee
53.10	0.82	-12.32	E1511	DSF	Dunfee

54.00	1.40	-12.83	E1511	DSF	Dunfee
55.00	1.12	-14.16	E1511	DSF	Dunfee
56.50	0.42	-17.18	E1511	DSF	Dunfee
58.00	1.86	-13.87	E1511	DSF	Dunfee
59.00	0.93	-18.12	E1511	DSF	Dunfee
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1.00	2.13	-13.91	E1515	R-DSF	Reed - Dunfee Mb
2.00	2.10	-14.26	E1515	R-DSF	Reed - Dunfee Mb
3.00	1.90	-14.23	E1515	R-DSF	Reed - Dunfee Mb
4.00	1.53	-15.30	E1515	R-DSF	Reed - Dunfee Mb
5.00	2.38	-15.77	E1515	R-DSF	Reed - Dunfee Mb
6.00	2.39	-15.72	E1515	R-DSF	Reed - Dunfee Mb
7.00	2.20	-15.68	E1515	R-DSF	Reed - Dunfee Mb
8.00	2.09	-13.17	E1515	R-DSF	Reed - Dunfee Mb
9.00	2.23	-14.01	E1515	R-DSF	Reed - Dunfee Mb
10.00	2.16	-13.17	E1515	R-DSF	Reed - Dunfee Mb
11.00	1.98	-12.91	E1515	R-DSF	Reed - Dunfee Mb
12.00	1.87	-13.09	E1515	R-DSF	Reed - Dunfee Mb
13.30	2.42	-16.41	E1515	R-DSF	Reed - Dunfee Mb
14.30	2.17	-14.89	E1515	R-DSF	Reed - Dunfee Mb
15.00	1.54	-14.53	E1515	R-DSF	Reed - Dunfee Mb
16.00	2.39	-16.08	E1515	R-DSF	Reed - Dunfee Mb
17.00	1.98	-16.44	E1515	R-DSF	Reed - Dunfee Mb
18.00	2.52	-19.50	E1515	R-DSF	Reed - Dunfee Mb
19.00	1.02	-16.98	E1515	R-DSF	Reed - Dunfee Mb
20.00	2.04	-16.63	E1515	R-DSF	Reed - Dunfee Mb
21.00	2.13	-20.38	E1515	R-DSF	Reed - Dunfee Mb
22A	1.45	-18.34	E1515	R-DSF	Reed - Dunfee Mb
22B	1.89	-14.65	E1515	R-DSF	Reed - Dunfee Mb
23.00	2.38	-12.19	E1515	R-DSF	Reed - Dunfee Mb
24.00	2.09	-12.82	E1515	R-DSF	Reed - Dunfee Mb
25.00	1.60	-22.30	E1515	R-DSF	Reed - Dunfee Mb
26.00	2.23	-19.41	E1515	R-DSF	Reed - Dunfee Mb
27.00	2.57	-17.51	E1515	R-DSF	Reed - Dunfee Mb
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29.00	2.04	-16.92	E1515	R-DSF	Reed - Dunfee Mb
30.00	1.30	-16.93	E1515	R-DSF	Reed - Dunfee Mb
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2.00	-2.16	-16.62	E1512	DSF	Dunfee
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8.00	-2.03	-16.85	E1512	DSF	Dunfee
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18.00	-2.39	-16.55	E1512	DSF	Dunfee
19.00	-2.47	-16.26	E1512	DSF	Dunfee
20.00	-1.73	-15.33	E1512	DSF	Dunfee
21.00	-1.88	-15.31	E1512	DSF	Dunfee
22.00	-1.11	-14.01	E1512	DSF	Dunfee
23.00	-2.42	-15.55	E1512	DSF	Dunfee
24.00	-1.86	-14.29	E1512	DSF	Dunfee
25.00	-1.70	-15.85	E1512	DSF	Dunfee
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28.00	-1.06	-12.91	E1512	DSF	Dunfee
29.00	-2.43	-14.74	E1512	DSF	Dunfee
30.00	-2.36	-14.20	E1512	DSF	Dunfee
31.00	-0.74	-12.73	E1512	DSF	Dunfee
32.00	-2.70	-11.96	E1512	DSF	Dunfee
33.00	-1.26	-13.97	E1512	DSF	Dunfee
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35.00	-2.74	-12.09	E1512	DSF	Dunfee
36.50	-2.39	-12.65	E1512	DSF	Dunfee
37.50	0.22	-12.96	E1512	DSF	Dunfee
39.00	-2.42	-15.44	E1512	DSF	Dunfee
40.00	-2.86	-14.53	E1512	DSF	Dunfee
41.00	-0.22	-13.70	E1512	DSF	Dunfee
42.00	-1.72	-14.18	E1512	DSF	Dunfee

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3	0.5	-19.93	E1536	DSF	Dunfee
4	0.16	-13.14	E1536	DSF	Dunfee
5	0.26	-16.65	E1536	DSF	Dunfee
6	0.32	-17.97	E1536	DSF	Dunfee
7	0.62	-10.15	E1536	DSF	Dunfee
8	0.63	-14.48	E1536	DSF	Dunfee
9	0.71	-8.98	E1536	DSF	Dunfee
10	0.09	-12.89	E1536	DSF	Dunfee
11	1.08	-11.19	E1536	DSF	Dunfee
11.7	2.07	-13.23	E1536	DSF	Dunfee
13	2.44	-13.44	E1536	DSF	Dunfee
14	2.21	-10.56	E1536	DSF	Dunfee
15	2.04	-11.44	E1536	DSF	Dunfee
16	2.06	-12.41	E1536	DSF	Dunfee
17	2.44	-15.83	E1536	DSF	Dunfee
18.5	1.86	-11.31	E1536	DSF	Dunfee
19	1.83	-11.45	E1536	DSF	Dunfee
20	1.65	-10.66	E1536	DSF	Dunfee
21	1.64	-12.56	E1536	DSF	Dunfee
21.8	2.04	-10.43	E1536	DSF	Dunfee
23	1.27	-15.9	E1536	DSF	Dunfee
24	1.62	-11.19	E1536	DSF	Dunfee
25	0.74	-13.52	E1536	DSF	Dunfee
26	0.75	-18.52	E1536	DSF	Dunfee
27	0.33	-12.79	E1536	DSF	Dunfee
28	-0.42	-12.94	E1536	DSF	Dunfee
39	-1.09	-14.31	E1536	DSF	Dunfee
40	-2.06	-14.88	E1536	DSF	Dunfee
40.8	-2.25	-15.08	E1536	DSF	Dunfee
42	-2.04	-14.57	E1536	DSF	Dunfee
43	-2.19	-14.31	E1536	DSF	Dunfee
44.3	-2.23	-14.75	E1536	DSF	Dunfee
45	-2.34	-14.76	E1536	DSF	Dunfee
46	-2.13	-14.95	E1536	DSF	Dunfee
47	-2.44	-14.67	E1536	DSF	Dunfee

47.8	-1.96	-13.88	E1536	DSF	Dunfee
49	-2.05	-11.85	E1536	DSF	Dunfee
50	-1.96	-11.04	E1536	DSF	Dunfee
51	-2.42	-13.81	E1536	DSF	Dunfee
52	-2.15	-13.54	E1536	DSF	Dunfee
53	-2.04	-10.07	E1536	DSF	Dunfee
54	-2.07	-9.72	E1536	DSF	Dunfee
55	-2.51	-11.94	E1536	DSF	Dunfee
55.6	-2.67	-14.13	E1536	DSF	Dunfee
57	-2.58	-14.18	E1536	DSF	Dunfee
58	-2.6	-14.4	E1536	DSF	Dunfee
59	-2.53	-14.45	E1536	DSF	Dunfee
60	-2.45	-13.9	E1536	DSF	Dunfee
61	-2.77	-12.58	E1536	DSF	Dunfee
62.2	-2.61	-13.56	E1536	DSF	Dunfee
63	-2.49	-12.89	E1536	DSF	Dunfee
64	-2.35	-13.07	E1536	DSF	Dunfee
65	-2.32	-12.44	E1536	DSF	Dunfee
66	-2.47	-12.79	E1536	DSF	Dunfee
67	-2.24	-12.1	E1536	DSF	Dunfee
68.2	-2.49	-11.44	E1536	DSF	Dunfee
69.8	-2.21	-10.82	E1536	DSF	Dunfee
71	-2.46	-11.95	E1536	DSF	Dunfee
72	-2.34	-11.22	E1536	DSF	Dunfee
73	-2.53	-11.29	E1536	DSF	Dunfee
74	-2.84	-11.69	E1536	DSF	Dunfee
75	-2.86	-10.88	E1536	DSF	Dunfee
76	-2.79	-12.9	E1536	DSF	Dunfee
77	-2.93	-11.11	E1536	DSF	Dunfee
78	-3.05	-14.02	E1536	DSF	Dunfee
79	-2.94	-13.49	E1536	DSF	Dunfee
80	-3.2	-14.34	E1536	DSF	Dunfee
80.5	-3.34	-13.24	E1536	DSF	Dunfee