

Appendix H

Small Calibration Sources

MJWTS possess 48 small calibration sources from Am-241 to U-238. The list of sources, their decayed source strength as of March 1, 2020 and the current retail price and the asking price are shown in Table 1 and Table 2 below. The asking price has been adjusted based on the activity remaining, the retail price and a 40% discount applied to the result. The current estimated worth for all 49 of the isotopes listed in Tables 1 and 2 is \$1,380.28 plus \$623.23, respectfully, or \$2,003.51. MJW will sell all of these sources for \$1,495.

Table 1. MJWTS Olean Facility Small Source Inventory (Decay Corrected to DATE)								
				DATE =	3/1/2020			
Small Source Inventory								
Item No.	Isotope	Serial #	MFR Date	Original Activity (µCi)	Current Activity (µCi)	T1/2 (Years)	Retail Price*	Asking Price**
1	Am-241	C7647	9/1/2005	4.464E-02	4.361E-02	4.3217E+02	\$ 81.95	\$ 48.04
2	Am-241	7269-11	12/14/2011	2.473E-02	2.441E-02	4.3217E+02	\$ 81.95	\$ 48.53
3	Am-241	K1-069	2/15/2013	9.427E-02	9.321E-02	4.3217E+02	\$ 81.95	\$ 48.62
4	Pu-239	C7639	9/1/2005	2.612E-02	2.611E-02	2.4110E+04	\$ 81.95	\$ 49.15
5	Th-230	C7644	9/1/2005	2.165E-02	2.165E-02	7.5380E+04	\$ 81.95	\$ 49.16
6	U-235	C7645	9/1/2005	8.588E-03	8.588E-03	7.0370E+08	\$ 81.95	\$ 49.17
7	U-238	C7646	9/1/2005	2.328E-03	2.328E-03	4.4680E+09	\$ 81.95	\$ 49.17
8	Cl-36	C7805	9/15/2005	5.079E-02	5.079E-02	3.0100E+05	\$ 81.95	\$ 49.17
9	Cs-137	C7806	9/15/2005	4.939E-02	3.541E-02	3.0120E+01	\$ 81.95	\$ 35.25
10	Cs-137	C7807	9/15/2005	4.824E-02	3.458E-02	3.0120E+01	\$ 81.95	\$ 35.25
11	Sr-90	C7661	9/15/2005	2.603E-02	1.831E-02	2.8500E+01	\$ 81.95	\$ 34.59
12	Sr-90	C7637	9/15/2005	5.189E-02	3.650E-02	2.8500E+01	\$ 81.95	\$ 34.59
13	I-129	C7632	9/15/2005	4.951E-01	4.951E-01	1.5700E+07	\$ 81.95	\$ 49.17
14	I-129	K1-070	2/15/2013	1.088E-01	1.088E-01	1.5700E+07	\$ 81.95	\$ 49.17
15	I-129	K6-612	9/1/2013	5.243E-02	5.243E-02	1.5700E+07	\$ 81.95	\$ 49.17
16	I-129	1684-64	9/1/2013	1.023E+00	1.023E+00	1.5700E+07	\$ 81.95	\$ 49.17
17	I-131 (S)	D1637	3/15/2006	5.083E-02	3.688E-02	3.0170E+01	\$ 81.95	\$ 35.67
18	Cs-137	1159-6-1	6/1/2006	1.027E+00	7.483E-01	3.0120E+01	\$ 81.95	\$ 35.83
19	Ba-133	1130101	11/30/2010	5.720E-01	3.112E-01	1.0540E+01	\$ 81.95	\$ 26.75
20	Cs-137	1130102	11/30/2010	4.620E+00	3.734E+00	3.0120E+01	\$ 81.95	\$ 39.74
21	Cs-137	1130103	11/30/2010	8.320E+00	6.724E+00	3.0120E+01	\$ 81.95	\$ 39.74
22	Cs-137	1130104	11/30/2010	5.130E-01	4.146E-01	3.0120E+01	\$ 81.95	\$ 39.74
23	Cs-137	1130105	11/30/2010	9.530E-01	7.702E-01	3.0120E+01	\$ 81.95	\$ 39.74
24	Cs-137	7268-11	12/14/2011	2.220E-02	1.837E-02	3.0120E+01	\$ 81.95	\$ 40.70
25	Cs-137	1649-52-2	3/1/2013	2.062E+00	1.755E+00	3.0120E+01	\$ 81.95	\$ 41.85
26	Am-241	1649-52-1	3/1/2013	2.351E+00	2.325E+00	4.3217E+02	\$ 81.95	\$ 48.62
27	Ba-133	UB993	2/1/2012	1.157E+00	6.799E-01	1.0540E+01	\$ 81.95	\$ 28.90
28	Co-60	UB995	2/1/2012	1.192E+00	4.118E-01	5.2720E+00	\$ 81.95	\$ 16.99
29	Eu-152	UB996	2/1/2012	1.205E+00	7.966E-01	1.3537E+01	\$ 148.75	\$ 59.00
30	Pb-210	UB998	2/1/2012	6.324E+00	4.919E+00	2.2300E+01	\$ 81.95	\$ 38.25
31	Ra-226	UB999	2/1/2012	8.590E-01	8.560E-01	1.6000E+03	\$ 81.95	\$ 49.00
32	Am-241	364-58-15	8/1/1991	1.175E+00	1.122E+00	4.3217E+02	\$ 81.95	\$ 46.97
33	Cs-137	364-58-12	8/1/1991	1.031E+00	5.339E-01	3.0120E+01	\$ 81.95	\$ 25.46
			Totals:	35.56	28.23		Total	\$ 1,380.28
*Estimated Retail Price Sources:						Total	\$ 2,771.15	
https://www.imagesco.com/geiger/radioactive-sources.html								
** Asking price based on remaing activity plus a 15% discount								

Table 2. MJWTS Olean Facility Small Source Inventory (Decay Corrected to DATE)								
				DATE =	3/1/2020			
Additional Small Source Inventory								
Item No.	Isotope	Serial #	MFR Date	Original Activity (μCi)	Current Activity (μCi)	T1/2 (Years)	Retail Price*	Asking Price**
1	Cs-137	N/A	2/1/2006	1.000E+01	7.232E+00	3.0120E+01	\$ 81.95	\$ 35.56
2	Cs-137	N/A	2/1/2006	1.000E+01	7.232E+00	3.0120E+01	\$ 81.95	\$ 35.56
3	Cs-137	N/A	5/1/2006	5.000E+00	3.636E+00	3.0120E+01	\$ 81.95	\$ 35.76
4	Cs-137	N/A	5/1/2006	5.000E+00	3.636E+00	3.0120E+01	\$ 81.95	\$ 35.76
5	Cs-137	N/A	3/1/2011	1.000E+00	8.128E-01	3.0120E+01	\$ 81.95	\$ 39.97
6	Cs-137	N/A	4/1/2012	1.000E+00	8.334E-01	3.0120E+01	\$ 81.95	\$ 40.98
7	Cs-137	N/A	3/1/2011	1.000E+00	8.128E-01	3.0120E+01	\$ 81.95	\$ 39.97
8	Cs-137	N/A	3/1/2011	1.000E+00	8.128E-01	3.0120E+01	\$ 81.95	\$ 39.97
9	Cs-137	N/A	3/1/2011	1.000E+00	8.128E-01	3.0120E+01	\$ 81.95	\$ 39.97
10	Cs-137	N/A	3/1/2011	1.000E+00	8.128E-01	3.0120E+01	\$ 81.95	\$ 39.97
11	Cs-137	N/A	3/1/2011	1.000E+00	8.128E-01	3.0120E+01	\$ 81.95	\$ 39.97
12	Cs-137	N/A	3/1/2011	1.000E+00	8.128E-01	3.0120E+01	\$ 81.95	\$ 39.97
13	Cs-137	N/A	3/1/2011	1.000E+00	8.128E-01	3.0120E+01	\$ 81.95	\$ 39.97
14	Cs-137	N/A	3/1/2011	1.000E+00	8.128E-01	3.0120E+01	\$ 81.95	\$ 39.97
15	Cs-137	N/A	3/1/2011	1.000E+00	8.128E-01	3.0120E+01	\$ 81.95	\$ 39.97
16	Cs-137	N/A	3/1/2011	1.000E+00	8.128E-01	3.0120E+01	\$ 81.95	\$ 39.97
			Totals:	42.00	31.51		Total	\$ 623.23
*Retail Price Sources:						Total	\$1,311.20	
https://www.imagesco.com/geiger/radioactive-sources.html								
** Asking price based on remaining activity plus a 15% discount								