

Public-Data File 86-98

PRELIMINARY WHOLE ROCK MAJOR OXIDE AND TRACE ELEMENT
GEOCHEMISTRY OF SELECTED IGNEOUS ROCKS FROM THE SLEETMUTE,
RUSSIAN MISSION, AND TAYLOR MOUNTAINS QUADRANGLES,
SOUTHWESTERN ALASKA

By

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This public data file contains previously unpublished preliminary information on the geochemistry of selected igneous rocks in the Sleetmute, Russian Mission, and Taylor Mountains Quadrangles of southwestern Alaska. This data was collected during the 1983 field season by Alaska Division of Geological and Geophysical Surveys (DGGS) personnel.

Wholerock major oxide analyses and high precision selected trace element analyses (denoted by "xrf" in the tables) were completed using XRF techniques, by Babette Faris of the DGGS geochemical laboratory in Fairbanks, Alaska. Trace element concentrations for other elements were obtained by instrumental neutron activation analysis at Becherel Laboratories Inc. of Mississauga, Ontario Canada. Rare earth data is listed in both chondrite normalized (C.N. in the tables) and unnormalized forms. Rubidium strontium analyses were completed by Dr. Terry Davis of the University of California at Davis.

SAMP NO.	CIPW NORM	q	c	or	ab	an	ne	hy	en	wo
83MR262B		5.49		4.32	27.51	28.79		7.99		
83RR296A		7.63		5.46	25.99	28.61		14.44		
83RR296		7.63		5.46	25.99	28.61		14.44		
83MR180B		12.39		11.50	22.87	29.50		13.41		
83GA149		10.98		8.27	30.72	28.33		7.75		
83MR125		6.37		7.29	26.06	22.58		17.44		
83MA34		6.06		7.21	24.59	26.38		20.15		
83MA23		6.66		8.06	25.37	27.03		14.84		
83TS653G		5.65		7.47	25.16	23.21		23.09		
83GA136A		6.40		7.13	25.48	23.06		18.56		
83TS653C		6.66		7.05	25.24	24.06		22.06		
83MR150B		6.73		18.45	33.14	14.79		6.92		
83GA148A		6.44		11.70	28.61	25.07		14.90		
83MR257B		5.13		8.05	23.90	19.66		23.77		
83TS652B		5.16		7.23	26.49	24.19		23.53		
83GA122		3.43		9.54	29.75	29.31		19.27		
83MR153		8.66		10.36	29.34	24.85		17.72		
83JM314B		9.64		6.92	50.15	14.53		8.50		
83JD429		15.40		9.00	26.20	23.12		13.53		
82MR307		10.57	0.20	16.88	36.00	19.46		10.66		
83MA121		11.12		19.29	24.35	14.54		16.46		
82MR300		12.80		14.33	30.19	23.12		11.53		
83MR168		17.55	0.60	17.34	32.44	16.03		8.65		
83JD417A		13.95		20.68	37.94	12.90		8.75		
83RA355		15.98		25.16	25.39	13.73		12.91		
83RR307		19.38		16.13	32.01	17.73		7.88		
83RR415A		18.18		22.91	26.76	14.97		9.09		
83MR167		19.07		22.68	26.71	15.35		9.29		
82MR311		19.95	0.23	19.29	29.99	17.80		8.56		
83GA178B		33.50		7.03	13.16	13.22				2.87
83MR233C		22.59	0.23	26.41	40.30	6.14		0.40		
83MR232C		20.52	0.09	22.99	35.20	13.01		3.54		
83MR172		28.31	2.04	20.20	31.46	8.85		2.97		
82MR309		26.29	3.08	29.47	25.92	5.49		6.21		
83MR234C		29.72	2.20	23.92	27.56	6.03		5.05		
83MR253		29.56	2.12	23.34	28.10	6.73		4.86		
83GA188B		35.19	2.96	23.78	24.03	8.40		1.50		
83MR212B		29.33	3.94	20.27	42.21			0.18		
83MR213		29.36	3.82	20.87	41.87			0.03		
83MR157		31.90	2.21	22.28	32.67	6.49		0.59		
83MR158		32.00	4.62	21.93	37.64			0.03		
83TS632A2		31.38	3.51	20.37	40.37			0.03		
83TS632C		31.04	3.72	20.71	39.40			1.85		
83TS632A1		31.57	3.35	20.31	40.42			0.03		
83JM320A		29.94	2.75	21.26	41.61	1.25		0.05		
83JD372A		33.62	0.91	26.50	28.40	5.60		0.78		
83TS631		42.97	5.77	20.62	26.29			0.13		
83MR142B		38.05	0.54	29.49	26.77	1.66		0.13		

SAMP NO.	Th(INNA)	Th(xrf)	U	Y	Nb	Zr	Sc	Cr	As	Sb	W	Fe(INNA)
83MR262B												
83RR296A												
83RR296												
83MR180B												
83GA149												
83MR125	3.18	3.0	1.59	20.0	11	139	22	498	3.79	0.45	199.0	5.71
83MA34												
83MA23	3.19	3.0	1.87	26.0	8	120	27	255	6.48	0.61	<1.23	5.55
83TS653G												
83GA136A	3.56	<3	1.67	20.0	8	109	24	525	5.53	0.52	84.2	5.43
83TS653C	3.05	3.0	1.76	21.0	8	119	23	509	3.55	0.42	185.0	5.32
83MR150B	9.21	9.0	3.32	43.0	49	318	16	14	3.22	0.37	185.0	6.05
83GA148A	4.60	5.0	2.43	26.0	10	168	20	83	5.25	0.65	137.0	5.06
83MR257B	3.60	3.0	1.69	15.0	9	109	20	895	8.84	0.76	117.0	5.08
83TS652B												
83GA122												
83MR153	5.51	5.0	2.80	26.0	10	166	19	151	57.10	2.23	175.0	2.36
83JM314B	3.68	<3	1.78	13.0	7	116	11	54	1.74	0.65	153.0	2.92
83JD429												
82MR307												
83MA121	6.53	7.0	3.07	17.0	9	144	16	449	59.70	128.00	95.5	3.79
82MR300												
83MR168												
83JD417A												
83RR355												
83RR307	8.07	7.0	2.29	30.0	10	184	13	32	2.42	2.04	233.0	3.56
83RR415A												
83MR167	16.00	17.0	6.49	22.0	11	193	10	151	25.00	3.79	319.0	2.73
82MR311												
83GA178B												
83MR233C												
83MR232C	14.50	13.0	4.80	21.0	14	144	6	23	1.47	0.24	282.0	1.78
83MR172												
82MR309												
83MR234C	10.00	9.0	6.91	25.0	24	183	7	23	19.50	0.27	368.0	2.50
83MR253												
83GA188B												
83MR212B												
83MR213	0.29	<3	9.02	14.0	25	18	1	<2.58	65.00	3.39	246.0	0.67
83MR157												
83MR158												
83TS632A2												
83TS632C												
83TS632A1												
83JM320A												
83JD372A	13.90	15.0	3.29	41.0	8	110	4	5	6.91	1.32	721.0	1.08
83TS631	0.49	<3	8.82	12.0	23	16	1	<2.26	9.06	1.85	4.9	0.54
83MR142B	25.80	29.0	9.85	75.0	49	196	2	<2.77	12.00	1.68	346.0	0.58

SAMP NO.	ROCK TYPE	LATITUDE	LONGITUDE	AGE	QUADRANGLE
83MR262B	BASALTIC ANDESITE	61 25' 02	158 03' 32		SLMT B-6
83RR296A	BASALTIC ANDESITE	61 19' 10	158 05' 00		SLMT B-6
83RR296	BASALTIC ANDESITE	61 19' 10	158 05' 00		SLMT B-6
83MR180B	BASALTIC ANDESITE	61 24' 41	157 52' 29		SLMT B-5
83GA149	BASALTIC ANDESITE	61 23' 47	157 58' 23	70.8+-2.1	SLMT B-6
83MR125	BASALTIC ANDESITE	61 23' 13	157 53' 15		SLMT B-6
83MA34	BASALTIC ANDESITE	61 24' 48	157 54' 43	64.3+-1.9	SLMT B-6
83MA23	BASALTIC ANDESITE	61 22' 28	157 55' 52	68.3+-1.9	SLMT B-6
83TS653G	BASALTIC ANDESITE	61 28' 08	157 45' 40		SLMT B-6
83GA136A	BASALTIC ANDESITE	61 23' 55	158 03' 30		SLMT B-6
83TS653C	BASALTIC ANDESITE	61 14' 04	158 02' 16		SLMT B-6
83MR150B	BASALTIC ANDESITE	61 27' 05	157 50' 37		SLMT B-5
83GA148A	BASALTIC ANDESITE	61 27' 18	157 52' 30	*70.7+-2.1	SLMT B-5
83MR257B	ANDESITE	61 24' 56	158 05' 31	*73.2+-2.2	SLMT B-6
83TS652B	BASALTIC ANDESITE	61 13' 25	158 07' 52		SLMT A-6
83GA122	BASALTIC ANDESITE	61 27' 18	157 32' 05	*74.5+-2.2	SLMT B-6
83MR153	DACITE	61 24' 48	157 54' 43		SLMT B-6
83JM314B	DACITE	61 06' 00	158 13' 23		SLMT A-6
83JD429	ANDESITE	61 14' 37	158 11' 04		SLMT A-6
82MR307	GRANODIORITE	61 02' 21	159 40' 32		RUS MIS A-2
83MA121	ANDESITE	61 14' 32	158 08' 41		SLMT A-6
82MR300	GRANODIORITE	61 07' 52	159 49' 44		RUS MIS A-3
83MR168	RHYODACITE	61 26' 20	158 14' 30		SLMT B-6
83JD417A	ANDESITE	61 14' 45	158 12' 58	69.8+-2.1	SLMT A-6
83RR355	QUARTZ MONZONITE	61 15' 05	158 03' 15		SLMT B-6
83RR307	GRANODIORITE	61 20' 00	158 50' 55		SLMT B-5
83RR415A	ANDESITE	61 14' 45	158 01' 42		SLMT A-6
83MR167	QUARTZ MONZONITE	61 15' 08	158 01' 47	68.7+-2.1	SLMT B-6
82MR311	GRANODIORITE	61 18' 36	157 58' 23	67.5+-2.0	SLMT B-6
83GA178B	RHYODACITE	61 14' 52	157 58' 50		SLMT A-6
83MR233C	GRANITE	60 55' 11	156 43' 18		T MTN D-2
83MR232C	GRANITE	61 09' 57	156 09' 49		SLMT A-1
83MR172	RHYOLITE	61 27' 16	158 14' 27	63.6+-1.9	SLMT B-6
82MR309	GRANITE	60 56' 18	157 22' 20		TAY MTN D-4
83MR234C	GRANITE	60 56' 02	157 22' 08		T MTN D-4
83MR253	DACITE	61 01' 22	158 14' 31		SLMT B-6
83GA188B	QUARTZ LATITE	61 24' 48	158 02' 10		SLMT B-6
83MR212B	RHYOLITE	61 25' 20	158 08' 40		SLMT B-6
83MR213	RHYOLITE	61 25' 10	158 09' 21		SLMT B-6
83MR157	RHYOLITE	61 28' 05	157 56' 30		SLMT B-6
83MR158	RHYOLITE	61 23' 19	158 14' 45	61.5+-1.8	SLMT B-6
83TS632A2	RHYOLITE	61 25' 09	158 08' 55		SLMT B-6
83TS632C	RHYOLITE	61 25' 09	158 08' 55		SLMT B-6
83TS632A1	RHYOLITE	61 25' 09	158 08' 55		SLMT B-6
83JM320A	APLITE	61 05' 45	158 12' 41		SLMT A-6
83JD372A	GRANITE	61 21' 32	157 47' 41	68.7+-2.1	SLMT B-5
83TS631	RHYOLITE	61 25' 00	158 08' 20	61.7+-1.8	SLMT B-6
83MR142B	RHYOLITE	61 26' 28	157 49' 20		SLMT B-5

KEY

* - Minimum K-Argon age determination

SLMT - Sleetmute Quadrangle

TAY MTN - Taylor Mountain Quadrangle

RUS MIS - Russian Mission Quadrangle

INNA - Instrumental neutron activation analysis by Bercheral Labs, Mississauga, Ontario, Canada

All non-INNA analyses are X-ray fluorescence analyses by the DGGG Geochemical Lab, Fairbanks, Alaska

note - Major oxide values and CIPW norms are in percent and trace element values are in ppm

87Sr/86Sr analyses by Dr. Terry Davis, University of California, Davis, California

SAMP NO.	SiO2	Al2O3	Fe2O3	FeO	MgO	CaO	Na2O	K2O	TiO2	P2O5	MnO	LOI	TOTAL
83MR262B	51.36	16.43	6.37	3.69	5.72	9.45	3.20	0.72	1.22	0.13	0.14	1.18	99.61
83RR296A	53.34	16.10	4.26	4.75	5.80	8.13	2.99	0.90	0.82	0.11	0.13		97.33
83RR296	53.34	16.10	4.26	4.75	5.80	8.13	2.99	0.90	0.82	0.11	0.13	3.02	100.35
83MR180B	53.77	16.51	4.37	4.04	4.45	6.13	2.57	1.85	1.12	0.18	0.08	5.18	100.25
83GA149	53.84	17.23	4.33	5.14	2.32	6.69	3.50	1.35	1.64	0.24	0.13	3.54	99.95
83MR125	53.93	14.39	3.84	5.59	6.93	7.62	3.02	1.21	1.19	0.17	0.15	1.75	99.79
83MA34	54.01	15.52	3.50	5.77	6.95	7.50	2.86	1.20	0.85	0.12	0.14	1.63	100.05
83MA23	54.19	16.27	4.51	5.17	5.95	7.95	2.99	1.36	1.02	0.16	0.14	0.77	100.48
83TS653G	54.38	14.60	3.84	5.49	8.38	6.69	2.94	1.25	1.01	0.14	0.14	0.26	99.12
83GA136A	54.46	14.51	4.15	5.16	7.53	7.57	2.97	1.19	0.85	0.11	0.14	0.70	99.34
83TS653C	54.65	14.85	3.91	5.31	8.01	6.72	2.95	1.18	1.02	0.15	0.15	0.41	99.31
83MR150B	54.73	14.79	4.20	6.12	2.53	5.44	3.80	3.03	1.97	0.27	0.15	2.49	99.52
83GA148A	54.81	16.64	3.41	5.62	4.61	6.62	3.33	1.95	1.16	0.22	0.13	0.95	99.45
83MR257B	54.86	13.21	4.07	4.99	9.77	7.04	2.80	1.35	0.78	0.11	0.13	0.39	99.50
83TS652B	54.90	15.29	3.52	5.68	8.11	6.56	3.12	1.22	0.99	0.13	0.14	0.43	100.09
83GA122	55.35	16.45	2.38	6.56	4.92	6.95	3.55	1.63	0.91	0.13	0.13	0.19	99.15
83MR153	57.68	16.77	2.41	6.47	4.39	6.05	3.48	1.76	1.03	0.17	0.14	0.01	100.36
83JM314B	58.44	15.08	3.11	3.31	2.87	3.83	5.62	1.11	0.71	0.13	0.08	0.97	95.26
83JD429	58.45	14.89	4.14	3.45	5.49	5.92	3.03	1.49	0.79	0.13	0.09	2.67	100.53
82MR307	59.10	17.07	1.89	4.62	2.19	4.37	4.17	2.80	1.29	0.40	0.11	1.87	99.88
83MA121	59.45	13.37	2.82	4.49	6.03	5.26	2.83	3.21	0.56	0.21	0.10	1.59	99.92
82MR300	60.39	16.93	2.61	3.69	3.42	5.62	3.56	2.42	0.81	0.26	0.10	0.50	100.31
83MR168	61.99	15.77	3.46	4.03	2.15	3.47	3.79	2.90	0.95	0.21	0.12	1.48	100.32
83JD417A	63.24	15.66	3.11	2.97	2.75	2.87	4.45	3.37	0.60	0.16	0.05		99.23
83RR355	63.66	15.62	3.18	3.73	2.02	3.79	3.77	2.72	0.91	0.14	0.10	0.71	100.35
83RR307	63.66	15.62	3.18	3.73	2.02	3.79	3.77	2.92	0.91	0.14	0.10	0.71	100.55
83RR415A	63.77	14.78	2.81	3.40	2.89	3.78	3.14	3.85	0.66	0.14	0.08		99.30
83MR167	64.56	14.94	2.65	3.33	2.81	3.63	3.15	3.83	0.66	0.13	0.08	0.58	100.35
82MR311	65.18	16.09	1.52	3.61	1.77	3.78	3.54	3.26	0.86	0.15	0.10	0.28	100.14
83GA178B	66.97	8.55	2.27	3.23	3.51	10.48	1.53	1.17	0.48	0.13	0.07		98.39
83MR233C	67.40	14.78	2.77	1.35	0.07	1.25	4.71	4.42	0.10	0.02	0.02	0.61	97.50
83MR232C	67.43	15.96	2.59	2.04	1.08	2.74	4.16	3.91	0.48	0.08	0.03	0.38	100.88
83MR172	68.36	15.06	3.31	2.29	0.92	1.95	3.71	3.41	0.56	0.13	0.07	1.23	101.00
82MR309	68.50	15.41	1.20	3.15	0.85	1.52	3.04	4.95	0.54	0.32	0.08	0.62	100.18
83MR234C	69.24	14.12	2.72	3.14	0.92	1.49	3.25	4.04	0.57	0.21	0.09	0.53	100.32
83MR253	69.63	14.36	2.64	3.01	0.92	1.61	3.33	3.96	0.55	0.19	0.08	0.58	100.86
83GA188B	70.12	14.75	2.85	0.90	0.59	1.71	2.78	3.94	0.19	0.04	0.02	1.63	99.52
83MR212B	70.72	15.67	2.26	0.99	0.01	0.27	4.93	3.39	0.01	0.45	0.12	0.79	99.61
83MR213	70.82	15.60	2.72	0.55	0.01	0.24	4.89	3.49	0.01	0.43	0.06	0.73	99.55
83MR157	70.98	14.82	2.44	1.18	0.23	1.33	3.81	3.72	0.11	0.03	0.02	1.00	99.67
83MR158	71.30	15.78	2.53	0.46	0.01	0.32	4.40	3.67	0.01	0.36	0.07	1.10	100.01
83TS632A2	71.56	14.93	2.58	0.64	0.01	0.26	4.72	3.41	0.01	0.75	0.06	0.98	99.91
83TS632C	71.65	15.02	2.50	0.72	0.01	0.23	4.61	3.47	0.01	0.81	0.06	1.03	100.12
83TS632A1	71.96	14.81	2.58	0.64	0.01	0.24	4.74	3.41	0.01	0.77	0.06	0.98	100.21
83JM320A	72.32	15.08	2.52	0.46	0.02	0.29	4.88	3.57	0.03	0.03	0.03	0.95	100.18
83JO372A	72.62	13.23	2.78	1.02	0.31	1.16	3.33	4.45	0.26	0.03	0.03	0.31	99.53
83TS631	74.06	14.58	2.49	0.56	0.05	0.32	3.09	3.47	0.04	0.73	0.06	1.71	101.16
83MR142B	76.02	11.71	2.52	0.59	0.05	0.36	3.15	4.97	0.17	0.02	0.02	0.31	99.89

SAMP NO.	Ba	La	Hf	Ta	Ce	Nd	Sm	Eu	Tb	Yb
83MR262B										
83RR296A										
83RR296										
83MR180B										
83GA149										
83MR125	485	14.0	3.3	1.1	36.8	14.8	3.9	1.1	0.4	1.7
83MA34										
83MA23	683	13.6	2.9	0.4	31.3	15.1	4.1	1.1	0.9	2.3
83TS653G										
83GA136A	522	12.8	2.8	0.6	29.5	15.7	3.4	1.0	0.3	1.9
83TS653C	371	13.1	3.3	0.8	30.8	15.6	3.6	1.1	0.6	1.9
83MR150B	446	51.1	8.1	3.9	103.0	44.0	9.2	1.5	1.3	3.9
83GA148A	910	19.1	3.7	0.8	41.8	19.4	4.8	1.4	0.7	2.3
83MR257B	349	14.4	2.4	0.8	32.5	13.7	3.4	0.9	0.6	1.4
83TS652B										
83GA122										
83MR153	748	18.0	4.2	0.9	40.0	20.2	4.6	1.1	0.7	2.8
83JM314B	494	17.1	2.8	0.8	35.5	13.6	3.2	0.9	0.3	1.4
83JD429										
82MR307										
83MA121	1448	28.8	3.4	0.7	66.1	28.4	5.7	1.3	0.5	1.8
82MR300										
83MR168										
83JD417A										
83RR355										
83RR307	883	25.0	5.3	1.2	56.1	26.9	5.3	1.1	0.8	2.6
83RR415A										
83MR167	978	31.3	5.0	1.5	66.5	26.8	4.6	1.0	0.5	2.0
82MR311										
83GA178B										
83MR233C										
83MR232C	801	33.4	6.0	2.1	63.6	24.3	4.1	0.8	0.4	2.0
83MR172										
82MR309										
83MR234C	654	31.9	5.1	3.9	64.3	28.7	5.6	1.0	0.9	2.4
83MR253										
83GA188B										
83MR212B										
83MR213	<61.01	<0.454	0.7	8.2	<1.55	<3.03	0.4	0.1	0.2	0.3
83MR157										
83MR158										
83TS632A2										
83TS632C										
83TS632A1										
83JM320A										
83JD372A	813	33.0	3.4	2.4	68.9	28.9	6.0	0.5	1.1	3.6
83TS631	78	0.1	0.8	7.7	1.4	<2.36	0.6	0.1	0.3	0.2
83MR142B	157	62.6	7.4	5.8	131.0	49.4	10.0	0.2	1.7	6.6

SAMP NO.	Rb(xrf)	Rb(INAA)	Sr	87Sr/86Sr(measured)	87Sr/86Sr(initial)	K(INAA)	Na(INAA)	Na(xrf)
83MR262B								
83RR296A								
83RR296								
83MR180B								
83GA149								
83MR125	38	40	371	0.70432	0.70403	1.04	2.07	1.87
83MA34								
83MA23	43	41	334			1.03	1.99	1.85
83TS653G								
83GA136A	36	29	309			1.09	2.01	1.84
83TS653C	38	33	329			1.23	2.03	1.83
83MR150B	79	69	389	0.70369	0.70317	2.57	2.52	2.35
83GA148A	64	59	439	0.70572	0.70536	1.58	2.21	2.06
83MR257B	41	35	307	0.70636	0.70601	1.03	1.95	1.73
83TS652B								
83GA122								
83MR153	63	63	324			1.53	2.36	2.15
83JM314B	27	33	547			1.05	3.70	3.48
83JD429								
82MR307								
83MA121	94	80				2.59	1.81	1.75
82MR300								
83MR168								
83JD417A								
83RR355								
83RR307	90	89	256			2.17	2.42	2.33
83RR415A								
83MR167	165	160	345	0.70750	0.70626	3.37	2.05	1.95
82MR311								
83GA178B								
83MR233C								
83MR232C	148	138	231			3.48	2.70	2.57
83MR172								
82MR309								
83MR234C	186	190	144			3.42	2.26	2.01
83MR253								
83GA188B								
83MR212B								
83MR213	460	483				2.93	3.17	3.03
83MR157								
83MR158								
83TS632A2								
83TS632C								
83TS632A1								
83JM320A								
83JO372A	158	161	77	0.70488	0.71040	3.82	2.18	2.06
83TS631	446	477	124	0.71496	0.70604	3.02	1.99	1.91
83MR142B	224	229	25			4.06	2.02	1.95

SAMP NO.	dl	ol	mg	hm	il	ru	ap	TOTAL
83MR262B	13.99		8.95	0.30	2.35		0.31	100.00
83RR296A	9.65		6.35		1.60		0.26	99.99
83RR296	9.65		6.35		1.60		0.26	99.99
83MR180B	0.99		6.67		2.24		0.44	100.01
83GA149	3.63		6.51		3.23		0.58	100.00
83MR125	11.88		5.68		2.31		0.40	100.01
83MA34	8.54		5.16		1.64		0.28	100.01
83MA23	9.17		6.56		1.94		0.37	100.00
83TS653G	7.52		5.63		1.94		0.33	100.00
83GA136A	11.39		6.10		1.64		0.26	100.02
83TS653C	6.90		5.73		1.96		0.35	100.01
83MR150B	9.19		6.28		3.86		0.64	100.00
83GA148A	5.52		5.02		2.24		0.52	100.02
83MR257B	11.78		5.95		1.50		0.26	100.00
83TS652B	6.08		5.12		1.89		0.30	99.99
83GA122	3.27		3.42		1.71		0.30	100.00
83MR153	3.24		3.48		1.95		0.39	99.99
83JM314B	3.46		4.76		1.42		0.32	99.70
83JD429	4.80		6.13		1.53		0.28	99.99
82MR307			2.80		2.50		0.95	100.02
83MA121	8.50		4.16		1.08		0.50	100.00
82MR300	2.53		3.36		1.54		0.60	100.00
83MR168			5.08				0.49	98.18
83JD417A	0.32		4.54		1.15		0.37	100.60
83RR355	1.22		3.73		1.50		0.38	100.00
83RR307	0.18		4.63		1.74		0.33	100.01
83RR415A	2.41		4.10		1.26		0.33	100.01
83MR167	1.49		3.85		1.26		0.30	100.00
82MR311			2.21		1.64		0.35	100.02
83GA178B	25.65		3.35		0.93		0.31	100.02
83MR233C			4.06				0.05	100.18
83MR232C			3.74				0.18	99.27
83MR172			4.81		1.07		0.30	100.01
82MR309			1.75		1.03		0.75	99.99
83MR234C			3.95				0.49	98.92
83MR253			3.82		1.04		0.44	100.01
83GA188B			2.47	1.21	0.37		0.10	100.01
83MR212B			3.32				1.60	100.85
83MR213			1.96	1.40	0.02		1.42	100.75
83MR157			3.59		0.21		0.07	100.01
83MR158			1.70		0.02		1.90	99.84
83TS632A2			2.25	1.05	0.02		1.54	100.52
83TS632C			2.21		0.02		1.36	100.31
83TS632A1			2.25	1.05	0.02		1.42	100.42
83JM320A			1.51	1.50	0.06		0.07	100.00
83JD372A			2.65	0.97	0.50		0.07	100.00
83TS631			1.90	1.20	0.08			98.96
83MR142B			1.48	1.51	0.32		0.05	100.00