

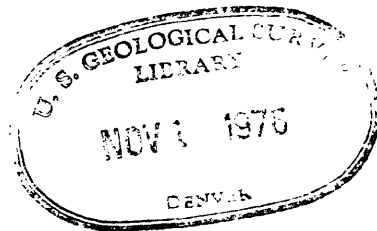
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United States Department of the Interior
Geological Survey

A NEW HEAT-FLOW CONTOUR MAP OF THE CONTERMINOUS UNITED STATES

by

J. H. Sass, W. H. Diment, A. H. Lachenbruch, B. V. Marshall,
R. J. Munroe, T. H. Moses, Jr., and T. C. Urban



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This report is preliminary and has not been edited or reviewed for conformity with Geological Survey standards and nomenclature.

This report presents a series of maps depicting our interpretation of the heat flow within the conterminous United States based on all the data available to the U.S. Geological Survey (USGS) as of August 1976. Sources include all published data and about a hundred new USGS values currently being readied for publication.

Figure 1 shows the distribution of points. The dots are USGS values, and the circles, those published by other institutions. For completeness, points in northern Mexico, southern Canada, and the Pacific coastal waters are included. A few points were left off the map. These included sites where the temperature profile showed curvature not related to changes in thermal conductivity and sites within a 3-km radius of hot springs or other currently active hydrothermal manifestations. Because of problems associated with the scale of the map, we have occasionally generalized one value from a number within a small area. In other instances where a sharp transition occurs over a short distance, one point is offset to show clearly the control for the transition.

In Figure 2, observed heat-flow data (q) are shown as coded symbols with state boundaries and latitudes and longitudes as points of reference.

Figure 3 shows our interpretation of the heat-flow field as a contour map. Our aim was to produce a map that was as objective as possible, and in general, we were guided by the heat flow alone without reference to other geological or geophysical quantities; however in

drawing the contours in areas of spotty control, we were guided by thermal criteria such as the presence or absence of hot springs. Figure 3a shows the contours for the entire continental United States, and Figure 3b, for the western part of the country where most of the thermal structure is found.

Figure 4 shows the reduced heat flow (q_r) plotted on a base adapted from the physiographic map of Fenneman (1946). The reduced heat flow (see e.g., Roy and others, 1972) is defined by $q_r = q - DA_0$ where q = surface heat flux, A_0 , the observed radioactivity, and D , an empirically determined constant for a given heat-flow province. For the United States west of the Great Plains, D is 10 km and for eastern United States, D was taken as 7.5 km (cf. Roy and others, 1968a; Birch and others, 1968). Figures 2 and 4 represent an updating and revision of Figures 9 and 10 of Diment and others (1975). The sources of individual points (with the exception of the unpublished USGS data which are now being readied for publication) may be obtained from Table 1 which lists published data by state, physiographic province, and geographic location.

TABLE 1. Locations, heat flow (q, HFU) and heat production (A, HGU) for published values plotted on Figures 1 through 4

					q	A
U.S.A. -- ALABAMA						
AL AP T01 TALLADEGA	RO 68	33-16	86-01		0.95	
U.S.A. -- ARIZONA						
AZ BR SRM SANTA RITA MTS. A719	RO 68	31-50	110-45		2.06	
AZ BR HV1 HELVETIA A729	RO 68	31-52	110-48		1.78	3.8
AZ BR CNT CONTINENTAL A972	RO 68	31-53	111-00		2.47	
AZ BR TB2 TWIN BUTTES A940	US 71	31-53	111-02		1.56	
AZ BR TB3 TWIN BUTTES A616	US 71	31-53	111-02		1.88	5.30
AZ BR SR1 SIERRITA MTS.	RO 68	31-53	111-08		2.0	7.7
AZ BR TB4 TWIN BUTTES A911	US 71	31-54	111-02		1.98	
AZ BR TB5 TWIN BUTTES A644	US 71	31-54	111-03		2.10	5.3
AZ BR HP1 HELMET PEAK A545	US 71	31-58	111-04		2.14	
AZ BR MN1 MISSION 106	RO 68	31-59	111-04		2.98	
AZ BR DR1 DRAGOON UCSD 4	WA 69	32-02	110-04		1.58	3.1
AZ BR DR1 DRAGOON UCSD 4	WA 69	32-02	110-04		1.58	3.1
AZ BR AJ1 AJO	RO 68	32-06	112-45		2.4	6.0
AZ BR KCL TUCSON KCL-7	US 71	32-11	111-07		2.56	
AZ BR SB1 SILVER BELL D151	RO 68	32-25	111-32		2.36	
AZ BR RR1 RED ROCK D-9-7	US 71	32-36	111-36		0.85	
AZ BR SM2 SAN MANUEL	LO 48	32-37	110-39		1.2	
AZ BR OR1 ORACLE UCSD-3	WA 69	32-37	110-48		1.85	5.7
AZ BR SM1 SAN MANUEL	US 71	32-40	110-42		1.54	6.00
AZ BR YU2 YUMA LCRP-13	US 71	32-41	114-37		2.10	
AZ BR YU3 YUMA LCRP-26	US 71	32-44	114-37		1.92	
AZ BR EL1 ELOY D-7-8	US 71	32-47	111-29		1.30	
AZ BR CH1 CHRISTMAS MINE SM-1	US 71	33-02	110-41		1.40	1.50
AZ BR RW1 RAINBOW VALLEY UCSD-2	WA 69	33-11	112-39		2.41	
AZ BR BC1 BUCKEYE HILLS UCSD-1	WA 69	33-17	112-38		3.42	
AZ BR HG1 HIGLEY D-1-6	US 71	33-19	111-43		1.70	
AZ BR TM1 TEMPE A-1-3	US 71	33-25	112-01		1.10	
AZ BR PH1 PHOENIX ST-1	US 71	33-32	112-20		3.00	
AZ BR QZ1 QUARTZSITE	RO 68	33-38	114-20		2.4	10.7
AZ BR BG2 BAGDAD 13-64	RO 68	34-35	113-11		1.64	
AZ BR BG1 BAGDAD 8-62	RO 68	34-36	113-12		1.6	6.6
AZ BR HL1 HUALAPAI MTS.	RO 68	35-08	113-49		2.14	2.0
AZ BR WH1 WHITE HILLS	RO 68	35-43	114-22		2.82	
U.S.A. -- CALIFORNIA						
CA SB ET1 EL CENTRO PO	ME 68	32-36	116-36		0.80	
CA SB ET2 EL CENTRO DU	ME 68	32-37	116-45		1.40	
CA SB ET3 EL CENTRO JA	ME 68	32-40	116-07		1.50	
CA SB ET4 EL CENTRO LO	ME 68	32-41	116-22		1.20	
CA SB ET5 EL CENTRO CW	ME 68	32-43	115-57		1.90	
CA BR IV1 IMPERIAL VALLEY UCR 127	CO 71	32-46	115-14		2.6	
CA BR IV2 IMPERIAL VALLEY UCR 116	CO 71	32-47	115-15		4.9	
CA BR IV3 IMPERIAL VALLEY UCR 123	CO 71	32-47	115-15		3.8	
CA BR IV4 IMPERIAL VALLEY UCR 122	CO 71	32-48	115-15		3.3	
CA BR IV5 IMPERIAL VALLEY UCR 124	CO 71	32-48	115-15		2.9	
CA BR IV6 IMPERIAL VALLEY UCR 125	CO 71	32-49	115-14		2.1	
CA BR IV7 IMPERIAL VALLEY UCR 126	CO 71	32-50	115-15		2.9	
CA FS ET6 EL CENTRO SV	ME 68	32-52	116-34		1.10	
CA FS AZ1 ANZA A-1	ME 68	33-30	116-36		1.87	3.60
CA FS AZ2 ANZA A-3	ME 68	33-32	116-36		1.76	2.80
CA SB AZ3 ANZA A-2	ME 68	33-32	116-48		1.46	2.20
CA BR CK3 EAGLE MT. CK-3	US 71	33-52	115-26		1.29	4.00
CA FS LB1 L. A. BASIN LB-1	US 71	33-53	118-02		1.74	
CA FS AC1 SANTA ANA AC-1	US 71	33-58	117-38		1.60	3.40
CA FS SB2 SAN BERNADINO SB-2	ME 68	34-15	117-19		1.63	
CA FS SB3 SAN BERNADINO SB-10	ME 68	34-15	117-20		1.58	3.70
CA FS SB4 SAN BERNADINO SB-5	ME 68	34-16	117-20		1.08	
CA BR LC1 LUCERNE VALLEY LV-1	ME 68	34-37	116-43		1.65	3.1
CA BR BRW BARSTOW M10.11	RO 68	34-39	116-41		1.6	

TABLE 1. Locations, heat flow (q, HFU) and heat production (A, HGU) for published values plotted on Figures 1 through 4 (continued)

			<u>q</u>	<u>A</u>
CA FS LM3 LAKE HUGHES LM-3	HE 68 34-39 118-29		1.68	2.60
CA FS LM2 LAKE HUGHES LM-2	HE 68 34-41 118-26		1.56	3.40
CA FS LM1 LAKE HUGHES LM-1	HE 68 34-44 118-24		1.72	8.70
CA FE TE1 TEHACHAPI MT. DM15A	HE 68 34-51 118-44		1.48	
CA FE TE2 TEHACHAPI MT. DM-70	HE 68 34-52 118-45		2.21	
CA FE TE3 TEHACHAPI MT. DM-14	HE 68 34-52 118-45		2.03	7.70
CA FE TE4 TEHACHAPI MT. DM-43	HE 68 34-53 118-46		2.02	2.10
CA FE TE5 TEJON RANCH DM-43	US 71 34-53 118-46		1.83	
CA FE TE6 TEHACHAPI MT. DM-65,67	HE 68 34-56 118-49		1.30	1.10
CA FE TE7 TEJON RANCH DM-65,67,6	US 71 34-56 118-49		1.36	
CA FE EM1 ELK HILLS 382-36	US 71 35-16 119-23		1.26	
CA FE EM2 ELK HILLS 343-36	US 71 35-16 119-24		1.12	
CA FE EM3 ELK HILLS 344-35S	US 71 35-17 119-22		1.20	
CA FE EM4 ELK HILLS 372-35R	US 71 35-17 119-28		1.30	
CA FE EM5 ELK HILLS 326-28R	US 71 35-17 119-31		1.26	
CA FE EM6 ELK HILLS 385-24Z	US 71 35-18 119-33		1.20	
CA FE EM7 ELK HILLS 366-24Z	US 71 35-18 119-34		1.00	
CA FW TS1 LA PANZA TS-1	US 71 35-26 120-30		2.21	5.40
CA FE WB1 WEST OF BAKERSFIELD	BE 47 35-28 119-45		1.29	
CA BR CO3 COSO AREA	CO 75 36-03 117-46		10.3	
CA FW HT3 HOLLISTER HO-3	HE 68 36-32 121-40		1.20	
CA FW HT5 HOLLISTER HO-5	HE 68 36-35 121-27		1.90	
CA FW HT1 HOLLISTER HO-1	HE 68 36-43 121-24		1.71	3.40
CA FW HT4 HOLLISTER HO-4	HE 68 36-48 121-20		2.30	
CA FW HT6 HOLLISTER HO-6	HE 68 36-50 121-17		2.30	
CA FW HT2 HOLLISTER HO-2 & 7	HE 68 36-53 121-35		1.70	
CA FW HT7 HOLLISTER HO-8	HE 68 36-55 120-58		1.40	
CA SN JB1 JOSE BASIN	US 71 37-06 119-23		0.77	3.7
CA SN SJR SAN JOAQUIN EX. RANGE	US 71 37-06 119-44		0.61	2.1
CA SN HC1 HELMS CREEK	US 71 37-08 118-59		1.30	9.0
CA SN ST1 SHERMAN THOMAS	US 71 37-10 120-04		0.45	0.70
CA FE PRM PERMANENTE	US 71 37-19 122-07		2.20	
CA BR DSP DEEP SPRINGS	US 71 37-24 118-00		1.80	3.4
CA FE SE1 SUNNYVALE C-3	US 71 37-27 122-02		2.02	
CA FE MP1 MENLO PARK MP-1	US 68 37-27 122-10		2.16	
CA FE DM1 DUMBARTON S.F. BAY	US 71 37-29 122-08		2.25	
CA BR BRK BLACK ROCK	US 71 37-41 118-32		2.00	
CA FE TR1 TRACY DM-2	US 71 37-48 121-35		0.96	
CA FE MST BERKELEY MSTW	US 71 37-52 122-15		2.00	
CA SN OM1 OMO RANCH	RO 68 38-33 120-34		0.72	
CA SN WR1 WRIGHT'S LAKE	RO 68 38-50 120-15		0.83	4.70
CA SN LO1 LOOMIS	RO 68 38-50 121-10		0.62	1.80
CA SN BL1 BLODGETT	RO 68 38-52 120-39		1.06	6.40
CA SN ADH AUBURN DAM	US 71 38-52 121-03		0.70	
CA SN LK1 LOON LAKE	RO 68 38-59 120-19		1.25	6.8
CA SN GR1 GRASS VALLEY	CL 57 39-12 121-03		0.69	3.20
CA SN SJ3 SAN JUAN RIDGE	US 71 39-24 120-52		0.69	1.70
CA FE FBG FORT BRAGG	US 71 39-26 123-44		2.00	
CA FE WIL WILLITTS EC-1	US 71 39-34 123-07		1.85	
CA CR EG7 COTTONWOOD GLADE EG-7	US 71 39-42 122-48		1.20	2.80
CA CR EGB COLD CREEK EG-8	US 71 39-42 122-53		1.50	2.40
CA BS MLY MOONLIGHT VALLEY	US 71 40-13 120-48		1.93	10.50
U.S.A. -- COLORADO				
CO RM T11 TRINIDAD #1	RE 75 37-13 104-43		4.69	
CO RM HS1 HESPERUS DDH-1	RO 68 37-23 108-04		2.08	
CO RM SMM SUMMITVILLE DDH-SM31	OB 74 37-26 106-36		2.46	
CO CP DV1 DOVE CREEK DDH-8,9	OB 74 37-47 108-46		2.17	
CO CP DV2 DOVE CREEK DDH-K1	OB 74 37-47 108-51		2.99	
CO RM SN1 SILVERTON	RE 75 37-48 107-37		2.22	
CO RM OU1 OURAY DDH-1	OB 74 37-56 107-40		3.7	
CO RM MAK MARY ALICE CREEK	RE 75 38-03 107-30		3.44	

TABLE 1. Locations, heat flow (q, IFU) and heat production (A, HGU)
 for published values plotted on Figures 1 through 4 (continued)

				<u>q</u>	<u>A</u>
CO RM NE1 NELLIE CREEK	RE 75	38-04	107-23		3.07
CO RM WJ1 WESTCLIFFE DDH-3,4,9,1	DB 74	38-08	105-27		1.62
CO CP AT1 ATKLUSON MESA	RE 75	38-12	108-49		1.38
CO RM WT1 WETMORE #1	RE 75	38-14	105-05		1.23
CO RM GK1 GEM PARK DDH-3,4	DB 74	38-16	105-32		1.87
CO CP WSM WILD STEER MESA	RE 75	38-26	108-46		1.33
CO RM CCY CANON CITY DDH-1	RO 68	38-30	105-20		1.84
CO RM CUP CUMBERLAND PASS DDH-CP2	DB 74	38-41	106-30		1.86
CO RM BVA BUENA VISTA	RE 75	38-47	106-10		2.13
CO GP REC RED CREEK ?	BI 50	38-49	104-49		1.4
CO RM CBE CRESTED BUTTE	RE 75	38-55	107-07		2.40
CO CP GL1 GLADE PARK DDH-10,11,16	OB 74	38-57	108-37		1.45
CO RM PD1 PARADISE PASS DDHPP-2	RO 68	39-00	107-04		1.55
CO RM KO1 KOKOMO DDH-1201	DB 74	39-26	106-08		2.8
CO RM SPK SOUTH PARK	RE 75	39-28	105-47		2.33
CO RM RB1 ROBERTS TUNNEL	RO 68	39-30	105-50		2.46
CO RM RO1 REOCLIFFE	RE 75	39-31	106-22		2.64
CO RM GNM GILMAN DDM E324	RO 68	39-33	106-24		2.25
CO RM UR1 URAD DDH-CX111,124	DB 74	39-46	105-50		2.50
CO CP TG2 RIO BLANCO TG2,3	US 71	39-46	108-09		1.50
CO RM GO1 GOLDEN DDH-1	RO 68	39-47	105-16		1.52
CO RM CR1 CENTRAL CITY	RE 75	39-48	105-35		2.20
CO RM RMA ROCKY MT. ARSENAL	US 71	39-51	104-51	3.90	2.00
CO RM APX APEX DDH-17BH	DB 74	39-52	105-33		1.67
CO CP RF1 RIFLE 28-1 & 14-1	RO 68	39-57	108-23		1.24
CO CP YC2 YELLOW CREEK CH-2	US 71	39-58	108-28		1.40
CO CP YC1 YELLOW CREEK CH-1	US 71	40-03	108-20		1.50
CO CP BRU BARCUS CREEK BC-1	US 71	40-03	108-31		2.00
CO CP YC3 YELLOW CREEK CH-3	US 71	40-03	108-21		1.50
CO RM AM1 ADAMS TUNNEL	BI 50	40-15	105-40		1.7
U.S.A. -- DIST OF COLUM					
DC AP DC1 DRB-1	DW 64	39-00	77-00		1.12
USA -- FLORIDA					
FL CN 001 NEAR ORLANDO	KI 72	28-28	81-13		0.92
U.S.A. -- GEORGIA					
GA CN LR1 LA GRANGE	DR 63	33-	85-		1.0
GA CN GH1 GRIFFIN	DR 63	33-13	84-15		0.97
U.S.A. -- IDAHO					
ID CU IO1 PT. PICKED OFF MAP	RO 72	44-06	115-40		3.0
ID RM WA1 WALLACE	US 71	47-29	115-58		2.30
ID RM SR1 SILVER SUMMIT	RO 68	47-30	116-02		2.25
ID RM CH1 CRESCENT MINE	RO 68	47-30	116-05		2.22
U.S.A. -- ILLINOIS					
IL IP CY1 CRESCENT CITY, TADEN 1	CO 70	40-45	87-47		1.44
IL IP CY2 CRESCENT CITY, F. WESSEL	CO 70	40-46	87-48		1.39
IL IP CY3 CRESCENT CITY, CONDUIT 1	CO 70	40-49	87-54		1.42
IL IP AN1 ANCONA, MUSSER 1	CO 70	41-01	88-54		1.41
U.S.A. -- INDIANA					
IN IP RO1 ROYAL CENTER S-36,38	CO 70	40-53	86-28		1.40
IN IP RO2 ROYAL CENTER S-55	CO 70	40-55	86-27		1.39
IN IP RO3 ROYAL CENTER S-46	CO 70	40-55	86-28		1.41
IN IP MI1 MONROEVILLE, L. WELL	CO 70	40-59	84-52		0.97
IN IP LF1 LINKVILLE FIELD	CO 70	41-23	86-14		1.28
U.S.A. -- IOWA					
IA IP C10 CAIRO, P. HUTCHINSON 2	CO 70	41-12	91-20		1.47
IA IP KE1 KEOTA, L. VOGEL 1	CO 70	41-22	91-55		1.49
IA IP KE2 KEOTA, J. ANDERSON 1	CO 70	41-23	91-55		1.49
IA IP RL1 REDFIELD, BOOK 1	CO 70	41-34	94-06		1.17
IA IP RL2 REDFIELD, BRODERICK 1	CO 70	41-40	94-10		1.17
IA IP RL3 REDFIELD, PRICE 1	CO 70	41-42	94-10		1.16
IA IP VI1 VINCENT, ANDERSON 1,3	CO 70	42-38	94-01		0.91

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						q	A
IA	IP	VI2	VINCENT, HOFFMAN 1-OLSON	CO 70	42-38 94-03	0.95	
IA	IP	SPE	SPENCER	RO 68	43-10 95-11	0.44	
U.S.A. -- KANSAS							
KS	IP	SYR	SYRACUSE	BI 50	37-57 101-45	1.55	
KS	IP	LY1	LYONS HOLE 1,2	US 71	38-23 98-10	1.50	
U.S.A. -- LAKE SUPERIOR							
MI	CS	LS1	STATION 8	MS 65	47-11 91-15	0.30	
MI	CS	LS2	STATION 5	MS 65	47-35 88-13	0.79	
MI	CS	LS3	STATION 4	MS 65	47-49 88-54	0.75	
MI	CS	LS4	STATION 7	MS 65	48-02 86-14	0.87	
U.S.A. -- MAINE							
ME	AP	CAO	CASCO	RO 68	44-03 70-37	1.80	12.9
ME	AP	BLU	BLUE HILL	RO 68	44-24 68-37	1.44	
U.S.A. -- MASSACHUSETTS							
MA	AP	BW1	BREWSTER	RO 68	41-45 70-05	1.16	
MA	AP	CBR	CAMBRIDGE	RO 68	42-23 71-07	1.20	
MA	AP	MF1	MILLERS FALLS	RO 68	42-37 72-27	1.67	
MA	AP	CHE	CHELMSFORD	RO 68	42-38 71-25	1.63	11.6
U.S.A. -- MICHIGAN							
MI	IP	LEN	LENEY 1956	LE 56	42-06 83-23	0.8	
MI	IP	NV2	NORTHVILLE 106	JB 73	42-26 83-34	1.20	
MI	IP	NV1	NORTHVILLE, N-203	CO 70	42-26 83-34	1.39	
MI	IP	BP1	BURNIPS, S-503-E	CO 70	42-43 85-49	1.07	
MI	IP	OL1	OVERISEL 150	JB 73	42-44 86-00	0.90	
MI	IP	OL1	OVERISEL 157	JB 73	42-44 86-00	0.90	
MI	IP	OL1	OVERISEL 162	JB 73	42-44 86-00	0.90	
MI	IP	MUT	MUTTONVILLE 2	JB 73	42-48 82-44	0.80	
MI	IP	BGY	BILLINGSLEY 1	JB 73	43-32 85 36	1.00	
MI	IP	AU1	AUSTIN-MAREK 1	JB 73	43-32 85-16	1.20	
MI	IP	EE1	E. BREGGS 2	JB 73	43-50 85-35	1.20	
MI	IP	MO1	MARION 972	CO 70	44-03 85-05	1.10	
MI	IP	MO2	MARION 965	JB 73	44-04 85-05	1.30	
MI	IP	MO3	MARION 829	JB 73	44-09 85-00	1.20	
MI	IP	MO4	MARION 192	JB 73	44-12 85-11	1.10	
MI	CS	WP1	WHITE PINE, N-55.65	RO 68	46-45 89-34	1.05	
MI	CS	CJ1	CALUMET	BI 54	47-17 88-28	0.93	
MI	CS	DW1	DELAWARE	RO 68	47-24 88-01	0.99	
U.S.A. -- MINNESOTA							
MN	CS	WI1	ROY CITES WILLIAMS 71	RO 72	44-54 93-12	1.15	
MN	CS	WI2	ROY CITES WILLIAMS 71	RO 72	46-06 93-42	1.03	
MN	CS	WI3	ROY CITES WILLIAMS 71	RO 72	47-09 95-12	0.89	
MN	CS	EY1	ELY 3,4	RO 68	47-49 91-43	0.82	1.4
U.S.A. -- MISSOURI							
MO	IP	IT1	IRONTON K-13	RO 68	37-30 90-40	1.24	
MO	IP	BO1	BOSS USA-7	RO 68	37-39 91-10	1.2	
MO	IP	BF1	BOURBON B-20	RO 68	38-09 91-15	1.24	
MO	IP	LVY	LEVASY	RO 68	38-05 94-10	1.17	5.5
U.S.A. -- MONTANA							
MT	RM	CN1	COOKE CITY 1,2	BL 67	45-03 109-57	1.31	
MT	RM	DN1	DILLON	BL 73	45-19 112-53	1.5	
MT	RM	NB1	NYE BASIN HOLE NB-2	US 71	45-22 109-49	1.39	5.50
MT	RM	VG1	VERDIGRIS CREEK M-22	US 71	45-23 109-54	1.63	5.50
MT	RM	VG2	VERDIGRIS CREEK M-19A	US 71	45-23 109-55	1.41	5.50
MT	RM	SO1	SILVER STAR	BL 73	45-43 112-20	1.94	5.2
MT	RM	WLL	WHITEHALL	BL 73	45-55 112-01	1.8	
MT	RM	SF1	SILVER BOW	BL 73	45-57 112-42	2.0	4.8
MT	RM	BJ1	BUTTE DDH 8-3	BL 67	46-03 112-33	2.1	8.6
MT	RM	SH1	SELK PARK	BL 73	46-15 112-27	1.98	7.0
MT	RM	DG1	DEER LODGE	BL 73	46-23 112-35	1.93	
MT	RM	PG1	PHILIPSBURG	BL 73	46-28 113-25	1.91	
MT	RM	UN1	UNIONVILLE	BL 73	46-29 112-07	1.92	

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			q	A
MT RM OT1	OTTOWA GULCH DDM-1,2	BB 73 46-44 112-19	3.2	
MT RM W01	WOODCHOPPER G. DDM-4,6	BB 73 46-44 112-19	4.7	
MT RM C01	CONTINENTAL DIVIDE DDM-	BB 73 46-43 112-19	5.0	
MT RM B01	BALO BUTTE DDM-9,10-13	BB 73 46-43 112-21	6.5	
MT RM EM1	EMPIRE CREEK DDM-15	BB 73 46-45 112-22	9.5	
MT RM NH1	NEIHART 36,37	BL 67 46-58 110-43	1.66	
MT RM LI1	LINCOLN 1,29	BL 67 47-02 112-23	2.16	
MT RM LE1	LIBBY	BL 67 48-14 115-55	1.75	
MT RM CX1	CONRAD	BL 69 48-20 111-55	0.9	
MT RM KN1	KEVIN-SUNBURST	BL 69 48-45 111-50	1.0	
U.S.A. -- NEVADA				
NV BR CE1	CRESCENT PEAK 1	RO 68 35-28 115-08	2.33	7.90
NV BR IN1	INDIAN SPR. VALLEY TW-4	US 71 36-36 115-47	2.17	
NV BR RK1	ROCK VALLEY TW-5	US 71 36-38 116-18	2.00	
NV BR FF1	FRENCHMAN FLAT TW-3	US 71 36-46 115-52	2.20	
NV BR HM1	HAMPEL HILL TW-F	US 71 36-46 116-07	1.81	
NV BR YM1	YUCCA FL. TW-6	US 71 36-48 116-24	1.60	
NV BR YF1	YUCCA FLAT TW-E	US 71 37-03 116-00	0.70	
NV BR OL1	DOLOMITE HILL	US 71 37-11 116-12	1.90	
NV BR PM1	PAHUTE MESA PM-1	US 71 37-17 116-24	1.00	
NV BR PM2	PAHUTE MESA PM-2	US 71 37-21 116-34	1.50	
NV BR TP4	TEMPIUTE	US 71 37-38 115-33	1.10	5.40
NV BR SK1	SILVER PEAK	US 71 37-43 117-47	1.90	
NV BR GFD	GOLDFIELD	US 71 37-44 117-12	2.30	10.30
NV BR MH1	MANHATTAN GAP	US 71 37-58 114-36	1.74	
NV BR BS1	BRISTOL RANGE ESP-1	US 71 38-04 114-36	1.69	
NV BR PO1	PIOCHE B-1 & B-3	RO 68 38-05 114-37	1.92	
NV BR BS2	BRISTOL RANGE ESP-3	US 71 38-06 114-36	1.74	
NV BR CG1	CROW SPRINGS 2,4,7,8&10	RO 68 38-14 117-33	2.30	
NV BR SV1	STONE CABIN VALLEY UCE-2	US 71 38-18 116-35	1.30	
NV BR HA1	HALL MINE 87 & 90	RO 68 38-19 117-18	2.52	
NV BR RY1	ROYSTON	RO 68 38-19 117-31	1.68	
NV BR PTM	PILOT MTS. DM-1,2 & 3	US 71 38-19 117-52	1.95	2.7
NV BR LN1	LUNING M-4	US 71 38-29 118-12	7.20	
NV BR UE1	RALSTON VALLEY UCE-1	US 71 38-34 116-56	1.79	4.40
NV BR HY1	HOT CREEK VALLEY UCE-18	US 71 38-35 116-12	1.28	
NV BR PS1	PATTERSON PASS PP-2 & 3	US 71 38-36 114-44	1.22	
NV BR FV1	FISH LAKE VALLEY UCE-10	US 71 38-41 116-28	1.20	
NV BR LSV	LITTLE SMOKEY VA. UCE-14	US 71 38-43 116-02	1.50	
NV BR FV2	FISH LAKE VALLEY UCE-9	US 71 38-49 116-27	1.20	
NV BS GRV	GARDNERVILLE	RO 68 38-51 119-45	1.14	
NV BR PNC	PINE NUT CANYON PN-19	US 71 38-52 119-35	2.45	5.00
NV BR FV3	FISH LAKE VALLEY UCE-12A	US 71 38-55 116-20	1.40	
NV BR YR1	YERINGTON	RO 63 38-55 119-04	2.36	
NV BR YR2	YERINGTON	US 71 38-56 119-04	1.84	
NV BR SC1	SCHURZ	RO 68 38-57 118-38	1.88	5.30
NV BR MV1	MONITOR VALLEY UCE-3	US 71 38-58 116-38	2.00	
NV BR SG1	SINGATSE RANGE	RO 68 38-58 119-16	1.56	
NV BR WM1	WARD MT.	RO 68 39-04 114-55	2.05	
NV BR TC1	TAYLOR CANYON	RO 68 39-05 114-41	5.32	
NV BR SS1	SAND SPRINGS	US 71 39-12 118-22	1.57	3.20
NV BR ME1	MONTE CRISTO 9 & 14	RO 68 39-14 115-34	2.14	
NV BR CV1	SILVER CITY CV-1	US 71 39-15 119-40	1.93	5.70
NV BR RT1	RUTH	RO 68 39-16 114-59	1.82	7.70
NV BR SP1	SPRING VALLEY	RO 68 39-17 114-21	1.83	
NV BR VC1	VIRGINIA CITY C-63	US 71 39-18 119-39	7.00	3.40
NV BR LW1	LOUSETOWN	US 71 39-23 119-38	2.80	
NV BR WH1	WASHINGTON HILL VC-4	US 71 39-28 119-38	2.10	
NV BR EK1	EUREKA	US 71 39-30 116-00	0.85	4.50
NV BR LL1	LOVELOCK	RO 68 40-02 118-19	2.50	
NV BR GAP	GOLD ACRE PIT	US 71 40-16 116-45	2.50	4.60

TABLE 1. Locations, heat flow (q, HFU) and heat production (A, HGU) for published values plotted on Figures 1 through 4 (continued)

				q	A
NV BR TN2	TENABO	US 71 40-18	116-40	3.53	4.1
NV BR LD1	LANDER	US 71 40-20	116-43	3.00	
NV BR IRC	IRON CANYON	US 71 40-33	117-06	3.50	4.3
NV BR BM1	PANTHER CANYON BM3 & 37	US 71 40-33	117-34	3.80	
NV BR BT1	BATTLE MT.	RO 68 40-33	117-14	2.06	
NV BR BUK	BUCKINGHAM B-6 & 11	US 71 40-37	117-04	2.70	7.60
NV BR EC1	ELDER CREEK EC-4	US 71 40-41	117-04	3.20	3.90
NV BR GV1	ADELAIDE GV-1	US 71 40-50	117-32	3.40	6.3
NV BR WE1	WHITE ELEPHANT BUTTE	US 71 41-53	115-05	3.30	
U.S.A. -- NEW HAMPSHIRE					
NH AP FW1	FITZWILLIAM	RO 68 42-47	72-08	1.63	9.6
NH AP DU1	DURHAM	RO 68 43-07	70-55	1.08	3.8
NH AP CCD	CONCORD	RO 68 43-12	71-32	1.73	
NH AP BX1	BRADFORD	RO 68 43-16	71-59	1.59	
NH AP WV1	WATERVILLE	RO 68 43-56	71-32	2.15	21.2
NH AP KA1	KANCOMAGUS	RO 68 44-02	71-29	2.27	20.7
NH AP NC1	NORTH CONWAY	RO 68 44-04	71-10	1.89	17.6
NH AP NR1	NORTH HAVERHILL	RO 68 44-06	72-00	1.34	7.8
U.S.A. -- NEW MEXICO					
NM BR H11	HACHITA	DS 75 31-51	108-18	2.40	4.5
NM BR LT1	LITTLE MACHET MT.	RE 75 31-54	108-26	2.30	
NM BR CO1	CORNUDAS	OS 75 32-01	105-29	2.00	
NM BR GG1	GRANITE GAP	RE 75 32-07	108-56	1.22	
NM BR S11	STEINS	RE 75 32-10	109-02	2.92	
NM IP SU1	SUPERIOR NO. 1	HC 56 32-14	104-07	1.20	
NM BR WS1	WHITE SANDS #2	RE 75 32-17	106-24	2.28	
NM IP MW1	MARLAND-OHIO #1	HC 56 32-18	103-45	1.00	
NM BR LG1	LOROSBURG	DS 75 32-20	108-47	1.70	2.30
NM BR MR1	MIRAGE	RE 75 32-22	107-40	9.68	
NM IP BB1	BLUEBIRD #1	HC 56 32-24	104-16	0.90	
NM BR OG1	OROGRANDE	OS 75 32-24	106-07	3.10	5.10
NM BR OG2	OROGRANDE UCSO-6	WA 69 32-26	106-06	2.24	6.70
NM BR WS2	WHITE SANDS #3	RE 75 32-26	106-27	2.08	
NM BR ON1	ORGAN DDH-1	DB 74 32-27	106-36	2.76	
NM BR ON2	ORGAN	OS 75 32-27	106-36	2.80	3.40
NM BR OG3	OROGRANDE NORTH	RE 75 32-30	106-00	1.75	
NM IP GO1	GETTY #7 DOOLEY	HC 56 32-31	104-09	1.00	
NM BR WS3	WHITE SANDS #4	RE 75 32-32	106-25	2.18	
NM BR CPK	COOKS PEAK	DS 75 32-32	107-41	3.60	2.40
NM BR WG1	WHITE SIGNAL	RO 68 32-32	108-21	2.06	
NM IP SAM	SANDBURG AND MILLS #1	HC 56 32-38	104-14	1.20	
NM BR TY1	TYRONE UCSO-5	WA 69 32-40	108-29	2.16	7.10
NM BR LAK	LAKE VALLEY	DS 75 32-43	107-35	2.60	4.90
NM IP CRO	CAP ROCK OIL AND GAS #1	HC 56 32-47	103-48	1.2	
NM BR SRA	SANTA RITA	OS 75 32-48	108-04	1.80	4.20
NM BR BK1	BITTER CREEK	RO 68 32-54	109-02	2.77	
NM BR AP1	ANIMAS PEAK	RE 75 32-58	107-32	1.70	
NM BR CF1	CUFFE	RO 68 32-03	108-30	2.56	
NM BR TT1	TORC NURTH	RE 75 33-17	107-16	2.20	
NM BR C11	CHLORIDE #1 & 2	RE 75 33-19	107-42	2.92	
NM BR SA1	SIERRA BLANCA	RE 75 33-28	105-47	1.77	
NM BR RS1	RAILROAD CAN. SOUTH	RE 75 33-31	108-11	1.98	
NM BR MC1	MONTICELLO CAN. #1 & 2	RE 75 33-34	107-36	3.36	
NM BR FT1	FORT CRAIG	RE 75 33-37	107-08	2.81	
NM BR CZ1	CARRIZO/NW	RE 75 33-44	106-02	1.44	
NM BR BN1	BIG RED CANYON	RE 75 33-44	107-21	1.28	
NM BR RS2	RAILROAD CAN. NORTH	RE 75 33-45	107-49	1.75	
NM BR BH1	BINGHAM SOUTH	RE 75 33-53	106-21	1.56	
NM BR BH2	BINGHAM NE	RE 75 33-57	106-17	1.46	
NM BR NY1	NORTH BALDY	RE 75 34-02	107-13	2.48	
NM BR CO1	CHUPADERA MESA	RE 75 34-06	106-48	2.20	

TABLE 1. Locations, heat flow (q, HFU) and heat production (A, HGU) for published values plotted on Figures 1 through 4 (continued)

				<u>q</u>	<u>A</u>
NM BR MG1	MAGDALENA WEST	RE 75	34-07 107-17	2.01	
NM BR MG2	MAGDALENA NW	RE 75	34-09 107-18	1.91	
NM BR NK1	NORTH LAKE	RE 75	34-14 107-38	1.91	
NM BR IS1	INDIAN SPRINGS	RE 75	34-18 107-26	1.95	
NM BR PI1	PIE TOWN NORTH	RE 75	34-19 108-07	1.55	
NM BR QS1	QUEMADO SOUTH	RE 75	34-20 108-30	1.98	
NM BR PI2	PIETOWN NW	RE 75	34-23 108-13	1.46	
NM BR SY1	SILVER CITY	RE 75	34-47 108-16	2.33	
NM BR AQ1	ALBUQUERQUE #1 & 2	RE 75	34-56 106-33	1.50	
NM BR ZP1	ZUNI PIA MESA	RE 75	34-58 108-45	2.96	
NM BR CF1	CLINES CORNERS	RE 75	35-00 105-37	0.82	
NM BR WW1	WAGON WHEEL	RE 75	35-00 105-43	1.61	
NM BR MYE	MORIARTY EAST	RE 75	35-00 105-54	1.82	
NM BR AQ2	ALBUQUERQUE	RE 75	35-03 106-31	1.08	
NM BR GS1	GRANTS	RE 75	35-07 107-46	1.68	
NM BR HW1	HOLWEG	RE 75	35-09 106-16	1.58	
NM BR RU1	RIO PUERCO #2	RE 75	35-12 107-01	2.27	
NM BR RU2	RIO PUERCO #3	RE 75	35-12 107-05	2.66	
NM BR RU3	RIO PUERCO #1	RE 75	35-13 107-01	3.08	
NM BR BBO	BIBO NORTH-SOUTH	RE 75	35-13 107-19	2.36	
NM BR SPR	SAN PEDRO #1 & 3	RE 75	35-15 106-11	1.32	
NM BR M21	MARQUEZ SE	RE 75	35-15 107-13	2.11	
NM BR M22	MARQUEZ	RE 75	35-17 107-15	2.14	
NM BR SFP	SAN FELIPE	RE 75	35-18 106-15	1.86	
NM BR OZ1	ORTIZ MT.	RE 75	35-20 106-11	1.76	
NM BR SHO	SAN MATEO MESA	RE 75	35-20 107-37	1.66	
NM BR GI1	GALISTEO	RE 75	35-25 106-00	1.48	
NM BR CS1	CERRILLOS	RO 68	35-28 106-07	1.22	
NM BR GW1	GALLUP WEST	RE 75	35-33 108-46	2.94	
NM BR GW2	GALLUP WEST #2	RE 75	35-35 108-51	1.66	
NM BR MK1	MARIANO LAKE	RE 75	35-38 108-19	2.35	
NM BR GW3	GALLUP WEST #3	RE 75	35-38 109-02	1.27	
NM BR GW4	GALLUP	DB 74	35-39 108-31	1.61	
NM BR CW1	CROWN POINT	RE 75	35-40 108-08	1.91	
NM BR CW2	CROWN POINT EAST	RE 75	35-42 107-56	2.04	
NM BR CSL	CHACO SLOPE	RE 75	35-51 107-24	1.49	
NM BR BU1	BUCKMAN	RE 75	35-52 106-09	1.91	
NM BR GT1	LOS ALAMOS GT-1	PO 73	35 54 106 40	3.6	
NM BR RA1	RED MT.	RE 75	35-55 107-49	1.70	
NM BR CWH	CHACO WASH	RE 75	35-56 107-48	1.63	
NM BR CYN	CHACO CAN.	RE 75	36-02 107-54	1.56	
NM BR DX1	DIXON	RE 75	36-13 105-48	5.25	
NM BR GAV	GAVILIAN EAST	RE 75	36-22 106-54	1.51	
NM BR TA1	TIERA AMARILLA	RE 75	36-23 106 23	2.34	
NM BR TO1	TAOS #1	RE 75	36-27 105-35	2.29	
NM BR EV1	EL VADO SW	RE 75	36-32 106-51	1.60	
NM BR GB2	GOBERNADOR SOUTH	RE 75	36-36 107-21	1.35	
NM BR MU1	MUNOZ CREEK	RE 75	36-36 107-25	1.29	
NM BR TAB	TABLE MESA #1 & 2	RE 75	36-37 108-37	2.30	
NM BR TRP	TRES PIEDPAS	RE 75	36-39 105-59	2.66	
NM BR CZK	CARRIZO CREEK	RE 75	36-39 107-40	1.26	
NM BR GB1	GOBERNADOR GB-1	US 71	36-41 107-12	2.01	
NM BR QU1	QUESTA EAST	RE 75	36-42 105-28	2.04	
NM BR QU2	QUESTA	RO 68	36-42 105-31	1.53	
NM BR BO1	BLANCO EAST #2	RE 75	36-42 107-43	1.33	
NM BR RV1	RED RIVER DDH-1	DB 74	36-43 105-24	1.90	
NM BR VJ1	VERMAJO RIVER	RE 75	36-45 104-53	1.93	
NM BR BO2	BLANCO EAST #1	RE 75	36-45 107-43	1.31	
NM BR RN1	RATTLESNAKE	RE 75	36-45 108-48	1.46	
NM BR NG1	NO AGUA	RE 75	36-46 105-58	3.02	
NM BR BO3	BLANCO NORTH	RE 75	36-47 107-50	1.72	

TABLE 1. Locations, heat flow (q, HFU) and heat production (A, HGU) for published values plotted on Figures 1 through 4 (continued)

				q	A
NM BR AE1	AZTEC NE	RE 75	36-50 107-55	1.47	
NM BR VJ2	VERMAJO PARK	RE 75	36-54 104-55	2.86	
NM BR AE2	AZTEC NORTH	RE 75	36-54 108-01	1.46	
NM BR CHW	CEDAR HILL WEST	RE 75	36-57 107-59	1.51	
U.S.A.	-- NEW JERSEY				
NJ AP FR1	FRANKLIN-OGDENSBURG	UR 71	41-06 74-35	0.91	
U.S.A.	-- NEW YORK				
NY AP WK1	WATKINS GLEN HOLE 23	UR 71	42-25 76-54	1.72	
NY AP GA1	GILBOA B-1,2	UR 71	42-27 74-26	1.00	
NY AP WY1	WEST VALLEY HOLE-1	UR 71	42-27 78-38	1.19	
NY AP HM1	HIMROD M-7,8	UR 71	42-34 76-57	1.55	
NY AP LX1	LACKAWANNA, BUFFALO HOLE	UR 71	42-48 78-51	1.20	
NY AP NF1	NIAGARA FALLS WPL-1	UR 71	43-05 79-00	1.16	
NY AP MT1	MIDDLEPORT FMC-1	UR 71	43-12 78-28	1.18	
NY AP GN1	GLENN FALLS	RO 68	43-18 73-37	1.05	
NY AP EZ1	ELIZABETHTOWN	RO 68	44-13 73-32	0.81	0.4
NY AP WD1	WADHAMS	RO 68	44-14 73-28	0.79	0.4
NY CS BZ1	BALMAT	UR 71	44-16 75-25	1.22	
NY AP SQ1	SARANAC LAKE	RO 68	44-20 74-16	0.81	0.4
NY AP RX1	RIVERVIEW	RO 68	44-35 73-54	1.22	5.8
U.S.A.	-- NORTH DAKOTA				
ND IP LJ1	LONE TREE	BL 69	48-18 101-40	1.4	
ND IP CHV	CARRIE HOVLAND #1	CO 70	48-55 102-26	2.20	
ND IP EN1	E.L.K. #1 NELSON	CO 70	48-56 100-50	2.20	
U.S.A.	-- OKLAHOMA				
OK IP PC1	PICHER 43-C,P-5	RO 68	36-59 94-52	1.4	7.6
U.S.A.	-- OREGON				
OR BR KL1	KLAMATH CO.	BL 69	42-12 121-50	1.6	
OR CU AL1	ALVORD 39-34S2	BO 73	42-17 118-41	2.3	
OR BR TK1	THOMAS CR. 37-18S14	BO 73	42-22 120-27	3.2	
OR CU BR5	BURNS	BL 69	43-27 118-06	2.0	
OR CU GY1	GRASSY MT. 21-43S36	BO 73	43-41 117-23	1.5	
OR CU VE1	VALE	BL 69	43-46 117-22	1.6	
OR CU CB1	CHALK BUTTE 19-45S26	BO 73	43-52 117-10	3.6	
OR CU CB2	CHALK BUTTE 19-45S25	BO 73	43-53 117-09	6.9	
OR CU CB3	CHALK BUTTE 19-45S22	BO 73	43-53 117-11	3.3	
OR CU CB4	CHALK BUTTE 19-45S14	BO 73	43-54 117-10	5.4	
OR CU CB5	CHALK BUTTE 19-45S11	BO 73	43-55 117-10	5.7	
U.S.A.	-- PENNSYLVANIA				
PA AP MM1	MT. HOLLY SPRING	UR 71	40-06 77-11	0.57	
PA AP RP1	READING -OLEY	UR 71	40-22 75-50	0.70	
PA AP RQ1	RIEGELSVILLE	UR 71	40-34 75-12	0.89	
PA AP LU1	LEHIGH P.C.CO. #1	JO 60	40-59 80-08	1.2	
PA AP SX1	SABULA	UR 71	41-12 78-39	1.31	
PA AP ER1	E.N.CLAIR #1	JO 60	41-52 78-00	1.31	
PA AP EI1	EARL A. HILL #1	JO 60	41-56 77-51	1.47	
U.S.A.	-- SOUTH CAROLINA				
SC CN AK1	AIKEN	OI 65	33-17 81-40	1.06	
U.S.A.	-- SOUTH DAKOTA				
SD IP AS1	ASSMAN #1	CO 70	43-15 100-12	2.10	
SD IP MOO	MOONSHINE GULCH NBH-2	US 71	44-08 103-43	0.50	
SD IP WFS	WINDY FLATS NBH-1	US 71	44-18 103-40	0.50	
SD IP LM1	LEAD-YATES	BL 67	44-21 103-45	1.9	
SD IP DY1	DACY RTM-1	US 71	44-22 103-53	1.90	
U.S.A.	-- TENNESSEE				
TN AP OE1	OAK RIDGE	DR 63	35-55 84-19	0.82	
U.S.A.	-- TEXAS				
TX IP UV1	NEAR UVALDE	KI 72	29-07 99-41	1.11	
TX BR SZ1	SHAFTER	DS 75	29-48 104-24	1.5	3.5
TX IP GJ1	GULF #1 NORTHRUP	MC 56	31-10 103-14	1.1	
TX IP BE1	BIG LAKE #1-B	BC 45	31-12 101-29	2.0	

TABLE 1. Locations, heat flow (q, HFU) and heat production (A, HGU) for published values plotted on Figures 1 through 4 (continued)

					q	A
TX IP BE2	BIG LAKE-UNIVERSITY	HC 56	31-15	101-28	1.1	
TX IP DK1	DONNELLY AND GERKE #1	HC 56	31-23	101-48	1.1	
TX IP VH1	VAN HORN	DS 75	31-27	104-53	1.0	
TX IP STP	STANDARD POTASH #2 TEST	HC 56	31-39	102-15	1.2	
U.S.A. -- UTAH						
UT BR CC2	CEDAR CITY N-6	US 71	37-38	113-26	2.19	
UT BR CC1	CEDAR CITY DE HOLES	US 71	37-42	113-18	2.12	3.50
UT CP HB1	HORSE RANGE MESA	RE 75	37-59	109-03	1.46	
UT CP LA1	LA SAL	WR 66	38-15	109-17	1.2	
UT BR MD1	MILFORD	RO 68	38-29	113-08	2.22	10.3
UT CP BY1	BALSLEY #1-C	SP 64	38-46	109-38	1.10	
UT CP HE1	HYDE #1	SP 64	38-51	109-30	1.01	
UT CP RE1	REED., CRESC. EAGLE, BR.	SP 64	38-55	109-50	1.32	
UT BR SO1	SPOR MOUNTAIN	WR 66	39-43	113-13	2.8	
UT BR GC1	GOVERNMENT CANYON GC-1A	RO 68	39-52	112-03	1.90	
UT BR EA1	EUREKA ET-5(A)	RO 68	39-57	112-03	2.0	
UT CP OUR	OURAY W-EX-1	US 71	39-59	109-36	1.50	
UT BR BI1	BINGHAM KCC-124	RO 68	40-31	112-09	1.91	
UT BR BI2	BINGHAM D-142	CW 73	40-32	112-09	2.3	
UT BR JV1	JORDAN VALLEY	WR 66	40-47	112-04	1.8	
U.S.A. -- VERMONT						
VT AP LZ1	LONDONDERRY	RO 68	43-15	72-50	1.23	
VT AP WN1	WESTON	RO 68	43-17	72-49	1.22	
VT AP NS1	NORTH SPRINGFIELD	RO 68	43-20	72-33	1.20	
U.S.A. -- VIRGINIA						
VA AP CRI	CRIPPLE CREEK	RE 73	36-49	81-06	1.03	
VA AP AA1	ALBERTA	DI 65	36-52	77-54	1.4	
VA AP GG1	GRUNDY	RE 73	37-20	82-00	1.70	
U.S.A. -- WASHINGTON						
WA CU RZ1	RICHLAND DM-3	US 71	46-21	119-17	1.50	
WA PC RAE	RANDLE	BL 74	46-21	122-06	1.5	
WA CU BO1	BENTON CITY	BL 69	46-25	119-34	1.7	
WA CU RZ5	RATTLESNAKE HILLS	US 71	46-26	119-47	1.38	
WA PC CHH	CHEHALIS	US 71	46-32	122-50	0.83	
WA CU RZ4	WILLA DM-1	US 71	46-35	119-31	1.52	
WA PC WQ1	WESTPORT	BL 74	46-51	124-06	0.9	
WA PC WQ1	WOCLEIPS	BL 69	47-12	124-06	1.1	
WA CU OD2	ODESSA	BL 74	47-20	118-55	1.7	
WA PC WU1	WENATCHEE	BL 74	47-22	120-18	1.5	
WA PC ND1	NORTH BEND	BL 69	47-30	121-22	1.26	
WA CU REO	REARDON	BL 74	47-52	118-07	2.1	
WA CU WX1	WILBUR	RO 68	48-04	118-42	1.68	
WA RM NH1	NESPELEM	BL 74	48-22	118-53	1.7	
WA PC AO1	ANACORTES	BL 74	48-28	122-38	0.9	
WA PC MX1	HAZAMA	BL 74	48-37	120-23	1.7	
WA RM RUI	REPUBLIC	BL 74	48-40	118-46	1.8	
WA RM TQ1	TOPASKIT	BL 74	48-43	118-31	1.8	
WA RM MIE	METALINE	RO 68	48-55	117-20	2.52	
WA RM LO1	LEADPOINT	BL 69	48-55	117-36	2.96	
WA RM CUM	CURLEW	BL 74	49-00	118-36	1.7	
WA RM OV1	OROVILLE	BL 74	49-00	119-29	1.7	
U.S.A. -- WEST VIRGINIA						
WV AP LWW	LEWIS MAXWELL #11-F	JO 60	39-17	80-46	1.22	
WV AP GX1	H.O. GOFF #1	JO 60	39-18	80-14	1.26	
WV AP JLI	J.H. LAKE #1	JO 60	39-25	80-05	1.20	
WV AP MWO	MORGANTOWN	UR 71	39-40	79-59	1.12	
U.S.A. -- WYOMING						
WY RM GZ1	GREEN RIVER GR1-1	US 71	41-32	109-25	1.60	
WY RM RIE	ROCK R. FIELD	BL 69	41-40	108-07	1.2	
WY RM FD1	FERRIS FIELD	BL 69	42-10	107-08	1.4	
WY RM PE1	PINEDALE OMPH	US 71	42-46	109-34	1.30	4.30

TABLE 1. Locations, heat flow (q, HFU) and heat production (A, HGU) for published values plotted on Figures 1 through 4 (continued)

			q	A
WY RM PEI PINEDALE OHPW	US 71 42-46 109-34		1.30	4.30
WY RM BY1 BIG MUDDY FIELD	BL 69 42-51 106-58		1.4	
WY IP LCF LANCE CK. FIELD	BL 69 43-04 104-38		2.0	
WY IP SCF SALT CK. FIELD	BL 69 43-35 106-15		1.8	
WY RM GEL GEBO FIELD	BL 69 43-48 108-14		1.6	
WY RM MEE MEETEETSE	RO 68 43-52 109-17		1.95	
WY RM LSD LITTLE SAND DRAW FIELD	BL 69 44-22 109-00		1.3	
WY RM OBI OREGON BASIN FIELD	BL 69 44-22 108-56		1.3	
WY RM YS1 YELLOWSTONE	WM 65 44-27 110-50		3.49	

BB 73	Blackwell and Baag, 1973
BC 45	Birch and Clark, 1945
BE 47	Benfield, 1947
BI 50	Birch, 1950
BI 54	Birch, 1954
BL 67	Blackwell, 1967
BL 69	Blackwell, 1969
BL 73	Blackwell and Robertson, 1973
BL 74	Blackwell, 1974
BO 73	Bowen, 1973
CL 57	Clark, 1957
CO 70	Combs, 1970
	(see also Combs and Simmons, 1973)
CO 71	Combs, 1971
CO 75	Combs, 1975
CW 73	Costain and Wright, 1973
DB 74	Decker and Birch, 1974
	(see also Decker and Smithson, 1973)
DI 65	Diment et al., 1965a, 1965b
DR 63	Diment and Robertson, 1963
DS 75	Decker and Smithson, 1975
DW 64	Diment and Werre, 1964
HC 56	Herrin and Clark, 1956
HE 68	Heney, 1968; Heney and Wasserburg, 1971
HS 65	Hart and Steinhart, 1965
JB 73	Judge and Beck, 1973
JO 60	Joyner, 1960
KI 72	King and Simmons, 1972
LE 56	Leney, 1956
LO 48	Lovering, 1948
PO 73	Potter, 1973
RE 65	Reiter et al., 1975
RO 68	Roy et al., 1968a, 1968b
RO 72	Roy et al., 1972
SP 64	Spicer, 1964
UR 71	Urban, 1970; Diment et al., 1972
US 68	Sass et al., 1968
US 71	Sass et al., 1971
WA 69	Warren et al., 1969
WH 65	White, 1965
WR 66	Wright, 1966
	(see also Costain and Wright, 1973)

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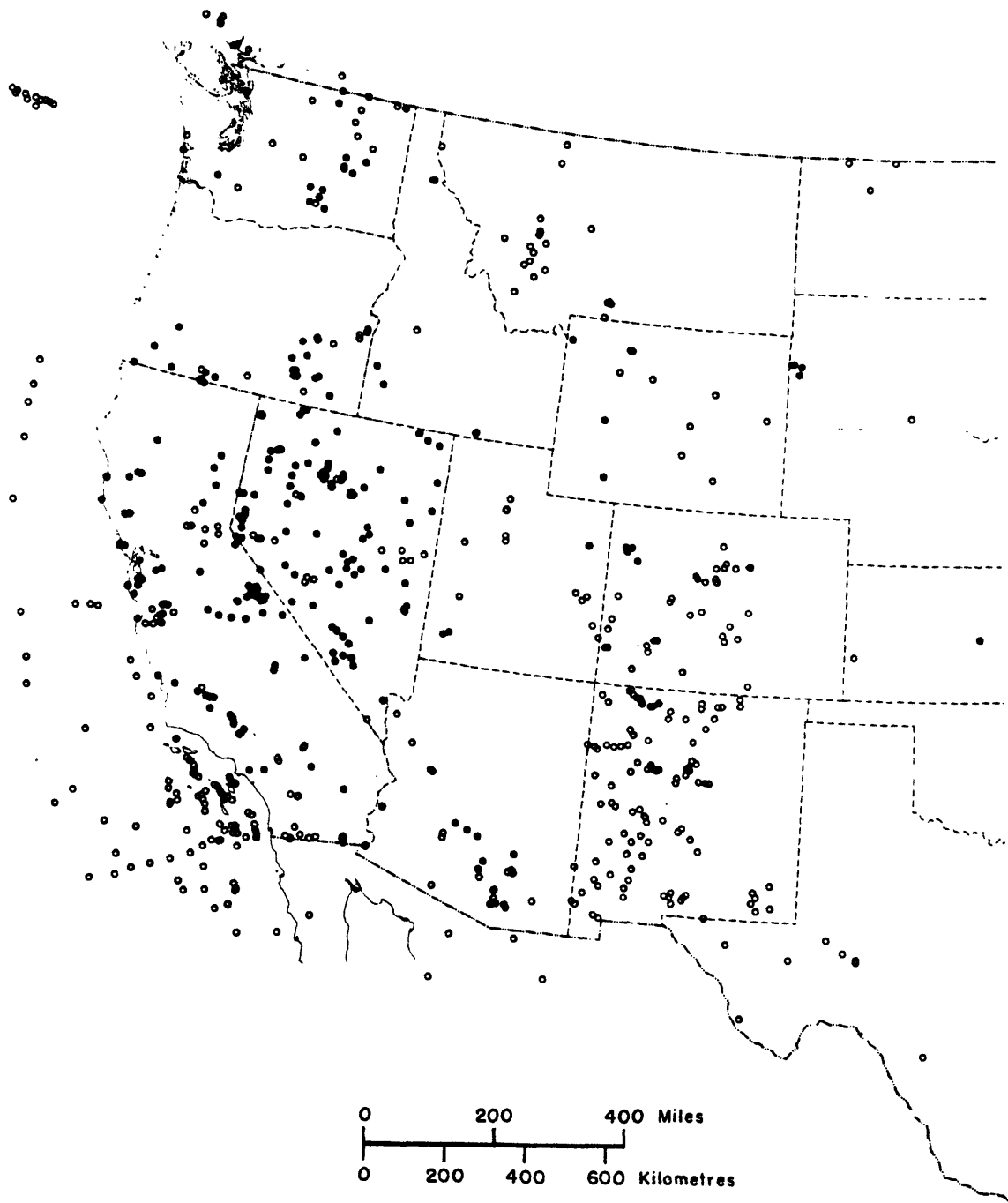
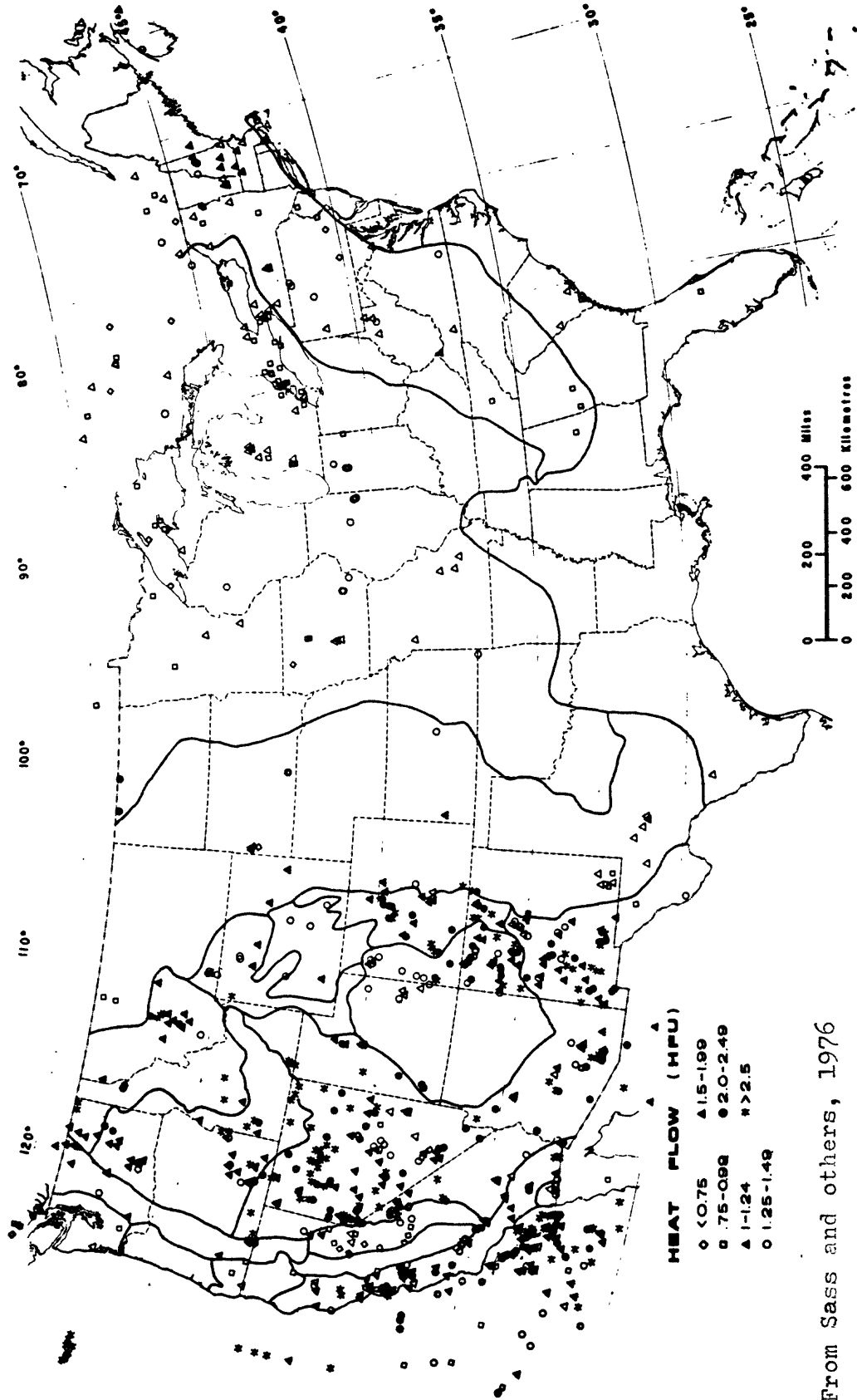


Figure 1a. Locations of heat-flow determinations in the western United States. Dots are USGS values, open circles, those published by other investigators.



Figure 1b. Locations of heat-flow determinations in the eastern United States. Dots are USGS values, open circles, those published by other investigators.



From Sass and others, 1976

Figure 2. Observed heat flow (q) in the United States. Physiographic boundaries (Figure 4) have been generalized from Fenneman (1946).

$$1 \text{ HFU} = 1 \times 10^{-6} \text{ cal/cm}^2\text{sec} = 41.8 \text{ mW/m}^2$$

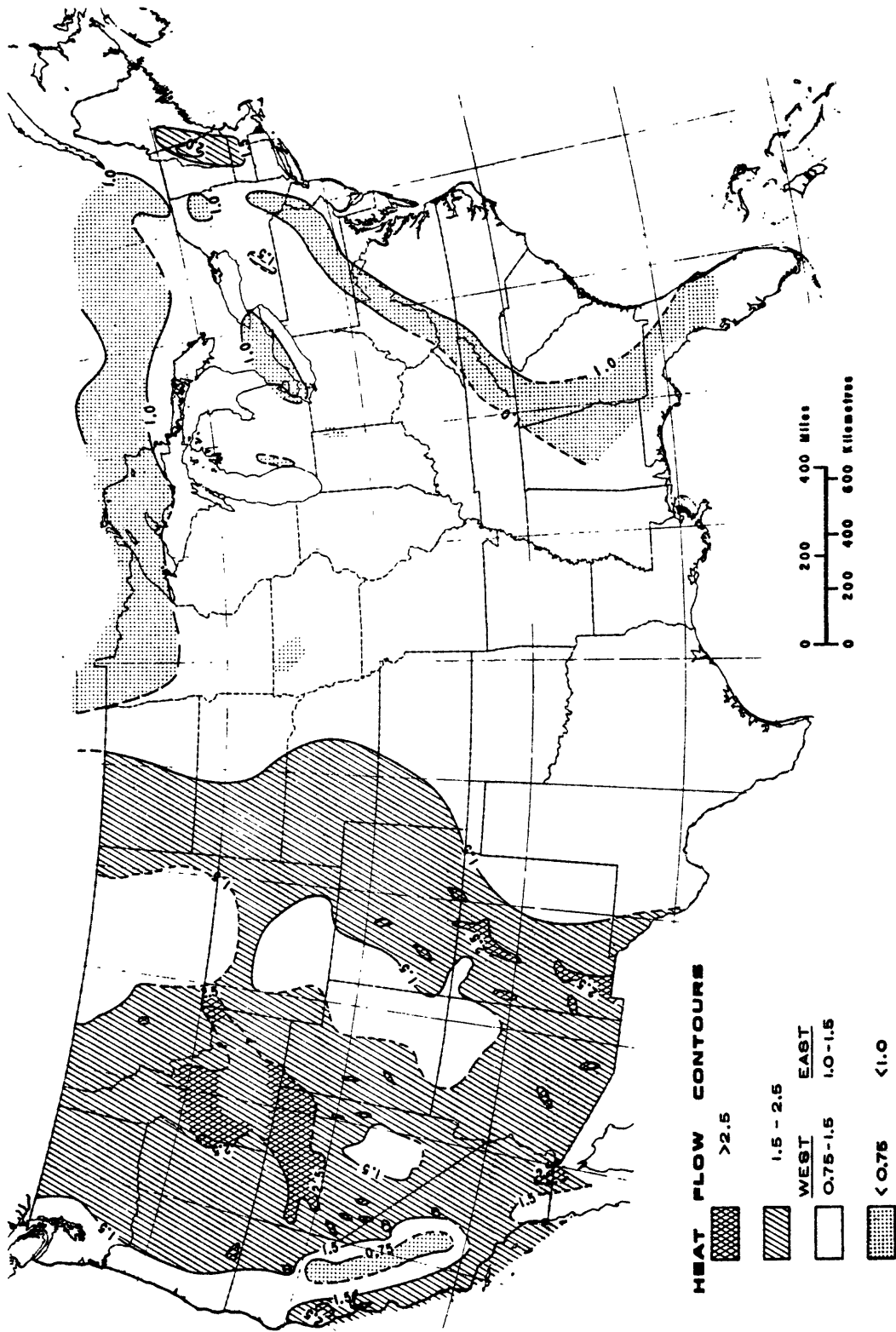


Figure 3a. A generalized representation of heat flow (q) in the United States. Contours are conjectural in places and will undoubtedly change with additional measurements.

$$1 \text{ HFU} = 1 \times 10^{-6} \text{ cal/cm}^2\text{sec} = 41.8 \text{ mW/m}^2$$

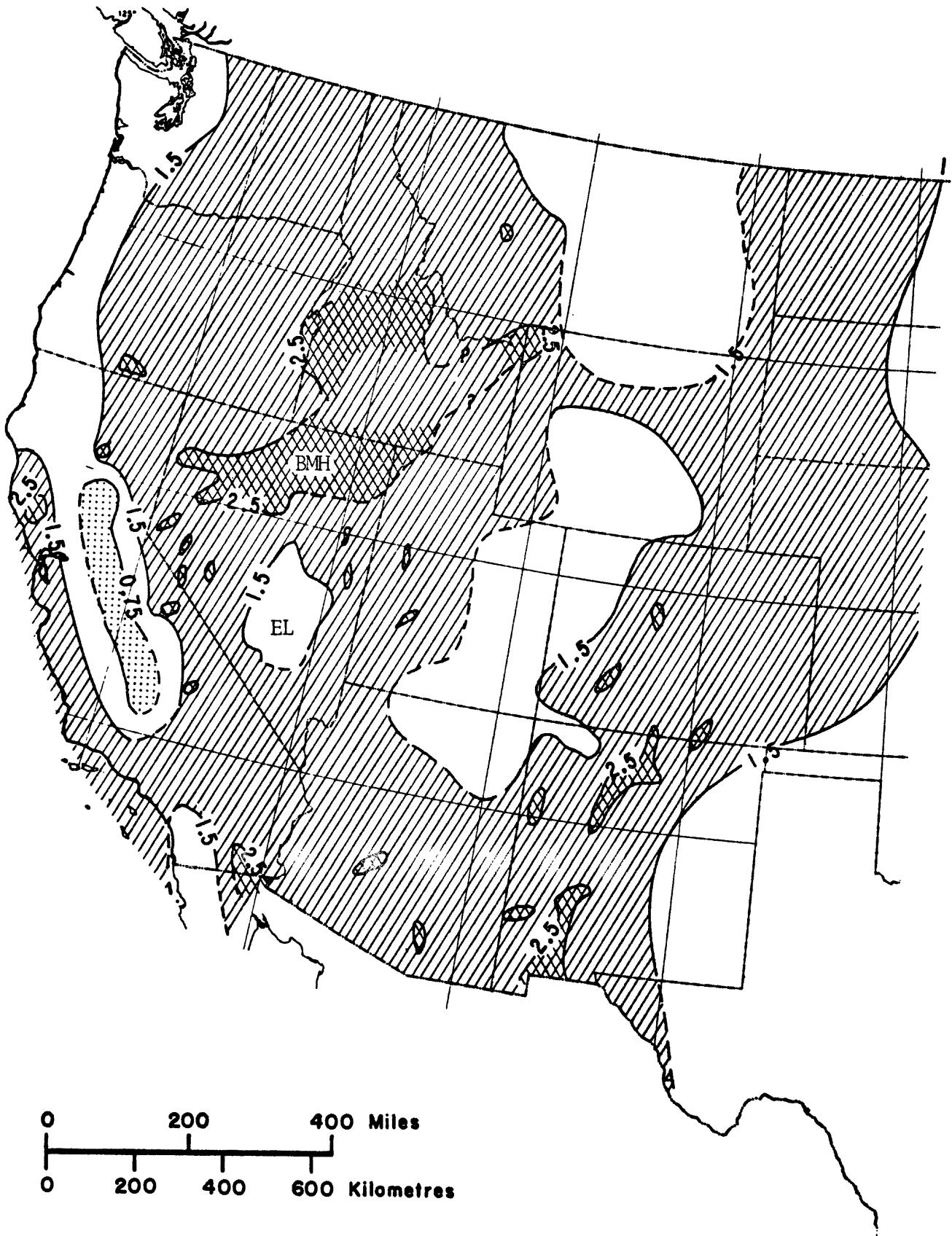


Figure 3b. Enlargement of the western part of Figure 3a. BMH is the Battle Mountain High, and EL, the Eureka Low (cf. Sass and others, 1971).

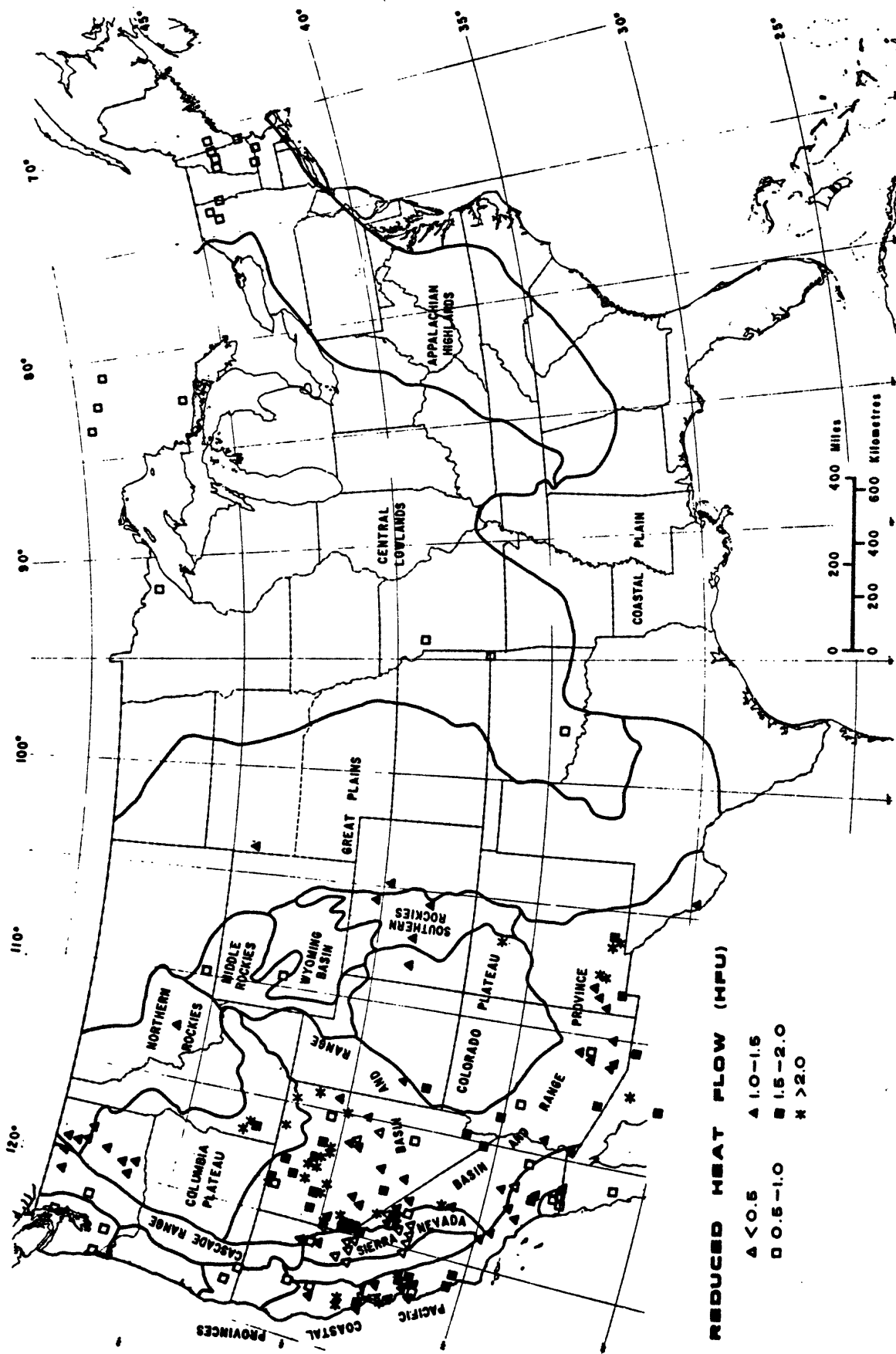


Figure 4. Reduced heat flow (q^*) in the United States. Physiographic provinces after Fenneman (1946).

$1 \text{ HFU} = 1 \times 10^{-6} \text{ cal/cm}^2\text{sec} = 41.8 \text{ mW/m}^2$