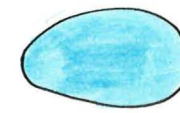


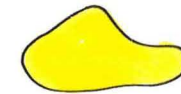
COLORADO

A COMPARISON OF PETROLEUM INFORMATION WELL DATA WITH AREAS CONSIDERED GENERALLY FAVORABLE FOR THE RECOVERY OF THERMAL WATERS.

EXPLANATION



Area generally favorable for the recovery of thermal waters. (USGS Circular 790)



Area of anomalous thermal gradients. (PI File)

$\frac{8}{11}$

Number of anomalous gradients. Total number of wells.



Areas of best well density.

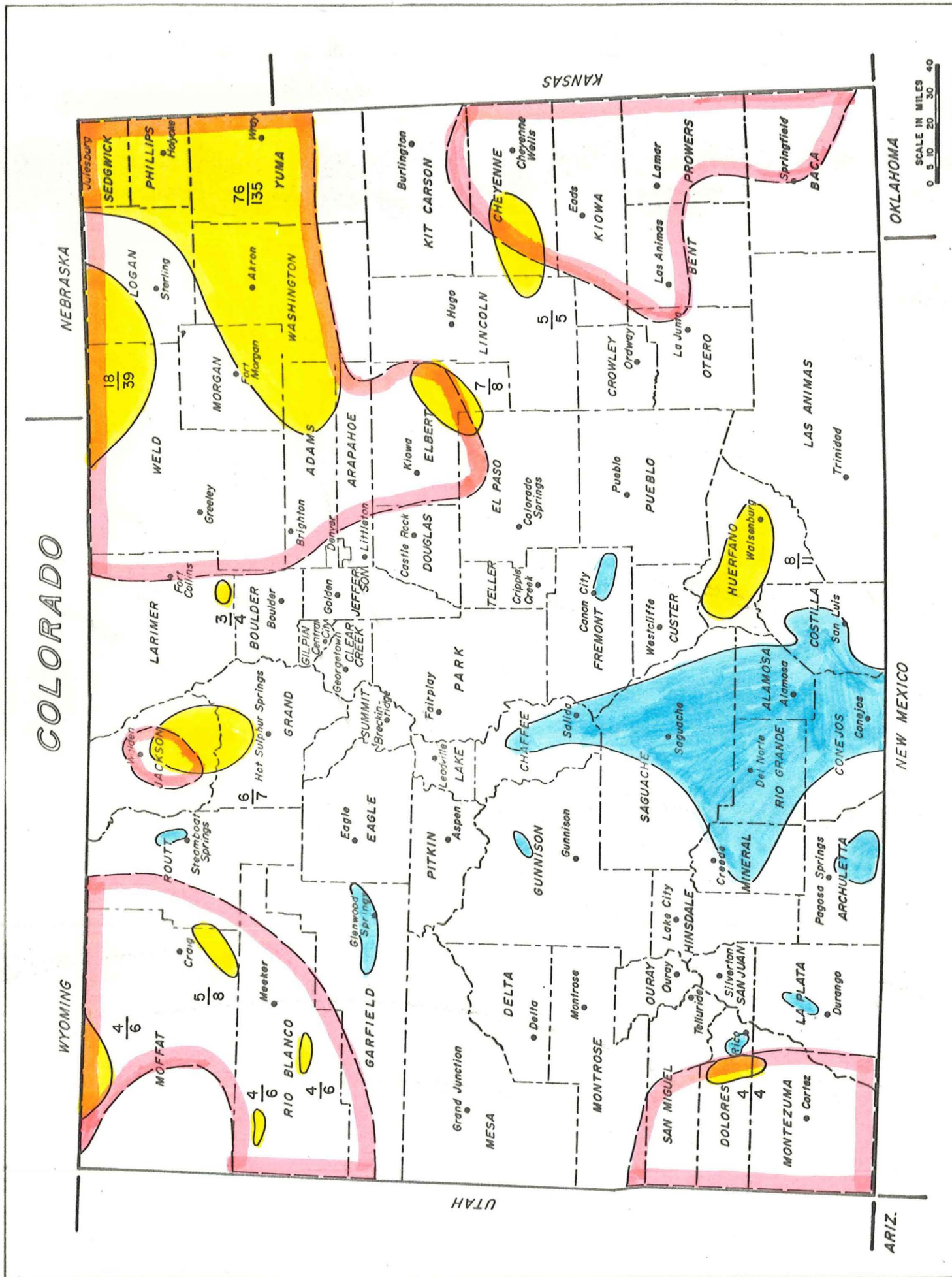


TABLE 2. AREAS OF PREDOMINANTLY HIGH THERMAL GRADIENTS (>35°C/km)

AREA NUMBER AND NAME	NUMBER OF WELLS		DEPTH TO ANOMALOUS BHTS ¹ m			MAXIMUM GRADIENT °C/km	STRATIGRAPHIC LOCATIONS OF ANOMALOUS BHT'S	COMMENTS
	TOTAL	ANOMALOUS	MINIMUM	MAXIMUM	AVERAGE			
			C O L O R A D O				(FIGURE 7)	
1. HIAWATHA	5	3	957	1,807	1,490	48 ^{36.6}	CRETACEOUS MESAVERDE FM. TO TERTIARY WASATCH FM.	BETWEEN SAND WASH AND WASHAKIE BASINS
2. RANGELY	14	11	902	1,673	1,151	50 ^{40.3}	UPPER TRIASSIC TO CRETACEOUS DAKOTA SS.	ALL WELLS IN RANGELY OIL FIELD OUTCROPPING MANCOS SHALE OCCUPIES MOST OF AREA
3. PICEANCE	5	4	1,281	2,725	1,728	47 ^{38.9}	CRETACEOUS MESAVERDE FM. AND TERTIARY WASATCH FM.	PICEANCE BASIN
4. CRAIG	8	5	926	1,478	1,196	43 ^{36.7}	CRETACEOUS - PRINCIPALLY DAKOTA SS.	WHITE RIVER PLATEAU LATE TERTIARY INTRUSIVE ROCKS PRESENT
5. RICO	4	4	1,238	2,025	1,735	54 ^{45.8}	MISSISSIPPIAN AND PENNSYLVANIAN	NEAR DUNTON-RICO HOT SPRINGS TERTIARY INTRUSIVE ROCKS PRESENT. MANCOS SHALE IN OUTCROP
6. WALDEN	9	6	270	1,974	1,364	109 ^{42.4}	CRETACEOUS AND TERTIARY	NORTH PARK BASIN. SURROUNDED BY PRECAMBRIAN GRANITIC ROCKS. QUATERNARY-TERTIARY ANDESITES AND BASALTS
7. BERTHOUD	4	3	934	1,107	998	45 ^{41.0}	CRETACEOUS	WESTERN EDGE OF DENVER BASIN. PRECAMBRIAN GRANITIC ROCKS TO WEST.
8. WALSENBURG	9	8	512	1,885	1,087	59 ^{41.2}	JURASSIC, CRETACEOUS, AND TERTIARY	EAST FLANK OF SANGRE DE CRISTO RANGE. PRECAMBRIAN GRANITIC ROCKS IN NORTHWEST. TERTIARY INTRUSIVES AND EXTRUSIVES. PIERRE SHALE ABUNDANT IN OUTCROP.
9. STERLING	23	17	1,496	2,361	1,855	48 ^{37.2}	CRETACEOUS DAKOTA SS.	DENVER BASIN
10. AKRON	83	51	1,050	2,089	1,568	46 ^{36.0}	CRETACEOUS DAKOTA SS.	CENTRAL AND EASTERN DENVER BASIN
11. WRAY	25	17	494	924	716	55 ^{39.9}	CRETACEOUS NIOBRARA FM.	EASTERN DENVER BASIN. CLASSIFIED SEPARATELY FROM AKRON AREA ON BASIS OF DISTINCTIVE DEPTHS AND FORMATION TESTED.
12. LIMON	7	7	944	1,906	1,650	47 ^{38.4}	CRETACEOUS - PRINCIPALLY DAKOTA SS.	DENVER BASIN
13. CHEYENNE CO.	5	5	979	1,489	1,245	44 ^{41.0}	PENNSYLVANIAN AND PERMIAN	EASTERN BOUNDARY OF DENVER BASIN - LAS ANIMAS ARCH. CORRESPONDS TO PIERRE SH. OUTCROP.

Colorado

PI REF. #	WELL NAME	COMPANY/OPERATOR NAME	TYPES OF LOGS RUN	COUNTY	LOCATION			TOTAL DEPTH LOGGED (FT)
					LATITUDE/LONGITUDE			
					T	R	SEC	
DENVER QUAD								
K6767Y	Picraux	Lyle Picraux	GR-N	Douglas	39.4047°/104.7514°			528
K6768W	Lifestyle 1B	Lifestyle	GR-N	Elbert	39.037°/104.204°			5010
K6767Z	Clark	Ed Clark	GR	Elbert	39.5250°/104.6600°			283
K6766Z	Brier Water	R.S. Brier	GR-N	Arapahoe	39.616°/104.947°			1143
K6768S	J. McGarvey	McGarvey	GR-N	Elbert	39.451°/104.583°			343
K6767X	J. Zimmerman	Zimmerman	GR-N	Douglas	39.494°/104.876°			496
K6766Y	L & B Oil #1	L & B Oil	GR-N	Adams	39.807°/104.390°			5010
K6766X	16-12 Gary State	Samuel Gary	GR-N	Adams	39.754°/104.336°			5021
K6767S, -W	Fulton #1	Fulton	GR, RS Den, R, Cal	Boulder	39.966°/105.062°			993
K6765Z, K6766W, -S	4-State	L & B Oil	KUT	Adams	39.838°/104.388°			4713
LIMON QAUD								
K6765Y	#1 David	Beren	GR-N	Adams	39.965°/103.823°			5011
STERLING QUAD								
K6768Y	Miller HLH	Miller - Christenson	GR-N	Logan	40.549°/103.215°			4500
K6770Y, -Z	Reed Water	Reed	GR, SP, N, RS Cal, Den, R	Weld	40.609°/103.800°			971
K6768Z	Baney #1	Baney	GR-N	Logan	40.6555°/103.5333°			5019
GREELEY QUAD								
K6771S, -X	Work Center H ₂ O	Forest Service	GR, SP, N, RS R, Cal, Den, S	Weld	40.65°/104.340°			241

Resistance - RS, Resistivity - R, Gamma Ray - GR, Neutron - N, Density - Den, Temperature - T, Caliper - Cal, Spectral Gamma - KUT, Self Potential - SP

McCraghy J.A., Colburn, 1964, Col. Water Conservation Board,
Basic data release 17
384 p.

TABLE 1.--RECORDS OF WELLS IN COLORADO--CONTINUED

LOCATION	OWNER	ADDRESS	ROUTE	COUNTY	N D D L Y B I P										F	
					U	M	A	E	E	I	U	ID	O	N		R
					R	E	T	E	L	E	WD	K	E	X	T	E
S B 1- 83- 40C	U S FOREST SERVICE			STEAMBT SPG COLO	08-25-60	56	10	15	0	5-53	P	5	6792			
S B 1- 84- 9AC	GUMPRECHT CITO V			TOPONAS COLO	09-04-63	80	70	60	IRR	5-53	P	15	4625	F		
S B 1- 84-10CB	GUMPRECHT CITO V			TOPONAS COLO	11-18-60	50	22	10	D&S	5-53	P	7	7337			
S B 3- 84-15BA	STETSON FRANK			OAK CREEK COLO	11-30-62	150	18	5	0	6-58	P	26	13086			
S B 3- 85- 2CC	STETSON FRANK			OAK CREEK COLO	08-29-63	75	60	50	S	6-58	P	33	17192			
S B 3- 85-16CC	GNEISNER DELWIN G			PHIPPSBURG COLO	05-16-62	53	10	6	0	6-58	P	20	11537			
S B 3- 85-17AA	STETSON J B			PHIPPSBURG COLO	11-10-61	90	9	8	0	6-58	P	18	10295			
S B 3- 85-17AD	LYLE CLIFFORD M	9839 W 44TH AVE		WHEATRIDGE COLO	07-09-62	72	21	10	0	6-58	P	24	12119			
S B 3- 85-17AD	JONES ELMER C			PHIPPSBURG COLO	07-11-62	53	12	15	0	6-58	P	25	12120			
S B 3- 85-17DB	INFANGER CLARENCE			PHIPPSBURG COLO	07-13-58	88		5	0	6-58	P	1	1610			
S B 3- 86-350D	ROSSI GEO			PHIPPSBURG COLO	08-04-58	112		10	0	6-58	P	2	1728			
S B 4- 85-32DB	OAK CREEK			OAK CREEK COLO	06-03-62	212	100	3	IRR	6-58	P	19	3608	F		
S B 4- 85-32DC	ROSSI LOUIS J			OAK CREEK COLO	06-05-62	40	9	6	0	6-58	P	21	11765			
S B 4- 89-12DD	PREECE STANLEY			CRAIG COLO	06-30-61	73	10	20	0	6-58	P	58	9042			
S B 5- 84- 3BR	KERRY LEWIS			STEAMBT SPG COLO	07-02-57	45		10	D&S	6-58	P	13	54			
S B 6- 84- 8CB	RALSTON MCRTON			STEAMBT SPG COLO	06-21-59	200		4	0	6-58	P	8	3774			
S B 6- 84-17BB	SUMMERS VERNON F			STEAMBT SPG COLO	11-14-61	170		3	0	6-58	P	16	10296			
S B 6- 84-17BC	HORNE WM S			STEAMBT SPG COLO	11-10-57	120		10	0	6-58	P	10	545			
S B 5- 85- 5AD	KELTON J T	1625 S LINCOLN		DENVER COLO	09-19-59	91		8	0	6-57	P	2	4550			
S B 5- 85-27CD	BARBER LYLE			OAK CREEK COLO	09-29-58	190		5	0	6-58	P	4	2095			
S B 5- 85-28DB	REARY BENJAMIN			OAK CREEK COLO	12-01-59	300	30	10	D&S	6-58	P	14	4905			
S B 5- 88- 7BB	HENDERSON HOWARD W			HAYDEN COLO	07-23-61	85	16	3	0	6-57	P	8	9219			
S B 5- 89-26DC	PREECE JOHN			CRAIG COLO	09-09-60	104	24	10	S	6-57	P	4	6838			
S B 6- 89-35AA	PREECE JOHN	VICTORY WAY		CRAIG COLO	08-12-63	175	165	4	S	6-44	P	102	16840			
S B 6- 89-35BC	PREECE JOHN			CRAIG COLO	07-16-61	83	41	8	S	6-44	P	55	9179			
S B 6- 84- 6CB	MUHME EDWARD			STEAMBT SPG COLO	06-07-58	39		12	0	6-58	P	3	1350			
S B 6- 84- 9BB	BLISS ELEANOR J			STEAMBT SPG COLO		58	190	4	0	6-58	P	17	10627			
S B 6- 84-28AC	CASEY WILLIAM R			STEAMBT SPG COLO	07-12-62	24	8	6	0	6-58	P	23	12121			
S B 6- 84-34CC	BECKER OPAL	251 GAY ST		LONGMONT COLO	07-19-59	50		9	0	6-58	P	9	3920			
S B 6- 85- 4AD	ALLEN GLEAN L			STEAMBT SPG COLO	11-09-58	280		600	S	6-58	P	5	2518			
S B 6- 86- 7DB	FORD EVERETTE F	776 COLO ST		CRAIG COLO	07	42	30	2	400	IRR	6-57	R	1	13755		
S B 6- 86- 8CC	TEXACO INC	P C BOX 2100		DENVER 1 COLO		42	12	6	59	COM	6-57	R	2	16307		
S B 6- 86-15AB	VODEHNAL ALBERT E			MILNER COLO	12-28-58	75	30	20	0	6-57	P	1	2557			
S B 6- 88- 1DC	REAGAR JOHN			HAYDEN COLO	08-27-62	160	60	8	COM	6-57	P	9	3824	F		
S B 6- 88-12BB	HOOKER O W			HAYDEN COLO	09-30-57	45		10	0	6-57	P	3	433			
S B 6- 89-30AC	CULVERWELL H G	8X 128		CRAIG COLO	10-21-60	277	65	2	0	6-57	P	5	7271			
S B 7- 84-27BC	U S FOREST SERVICE			STEAMBT SPG COLO	09-07-60	47	12	2	0	6-58	P	15	6791			
S B 7- 84-32DD	HAWKINS KENNETH S			STEAMBT SPG COLO	10-19-62	21	13	10	D&S	6-58	P	27	13280			
S B 7- 84-33CD	SWINEHART R L	P O BOX 383		STEAMBT SPG COLO	10-16-62	51	18	10	0	6-58	P	28	13322			
S B 7- 85- 3AC	WOOK LCLA			STEAMBT SPG COLO	10-19-57	65		10	0	6-58	P	11	495			
S B 7- 85-22CD	CARVER M W			STEAMBT SPG COLO	08-12-57	24		10	0	6-58	P	12	273			
S B 8- 85- 3BB	HARVEY CARROLL			STEAMBT SPG COLO	06-12-59	50		1	0	6-58	P	7	3291			
S B 8- 86-21AA	HAYSTACK ANGUS RANCH			CLARK COLO	10-20-62	65	5	1	D&S	6-58	P	30	13072			
S B 8- 87-160B	SMITH RANCHO INC			CRAIG COLO	08-28-61	262	FLOW	3	S	6-44	P	57	9550			
S B10- 85-20DB	MURRAY BILLIE B			CLARK COLO	09-20-63	177	70	12	0	6-58	P	32	17522			
S B10- 85-26CD	HARTT PEARL	BOX 1105		RAWLINS WYO	09-12-63	77	8	8	0	6-58	P	31	17324			

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