

TABLE 10.—Quartz crystal mines and prospects in western Arkansas  
 [Locality numbers correspond to those on plate 25. Mines and prospects described in the text are not included]

Locality number	Name and location	Land owner	Country rock	Description of deposit	Minerals associated with quartz	Inclusions in crystals	Approximate ratio of vein quartz to crystals	Approximate number of crystals mined in 1943 (pounds)	Approximate ratio of simple to complex crystals	Eye-clear quartz pieces weighing more than ¼ pound each			Eye-clear quartz more than 60 percent optically twinned (percent)	Remarks	
										Total mined (pounds)	Maximum	Average (ounces)			
										Pounds	Ounces	Ounces			
<b>Garland County</b>															
4	Foyll, SW¼SW¼ sec. 1, T. 1 S., R. 20 W.	Dierks Lumber & Coal Co.	Blakely sandstone (quartzitic phase)	Stockwork, 15 by 8 by 9 feet	Calcite and dickite		2:1	1,000	15:1	140	9	0	12	0.31	17 percent partly eye-clear crystals. Grade 1. See pl. 32.
5	Dierks No. 3, SW¼ sec. 5, T. 1 S., R. 19 W.	do	do	Simple veins as much as 100 feet long and 4 feet wide; strike, N. 38°-57° W.	Calcite	Carbonaceous material	20:1	1,500	10:1	40	12	5	5	.37	14 percent partly eye-clear crystals. Partly grade 1.
6	J. W. Ellison, NW¼NW¼ sec. 8, T. 1 S., R. 19 W.	J. W. Ellison	Blakely sandstone (quartzitic and argillaceous phase)	Irregular pockets, as much as 10 by 10 by 6 feet, in residuum.	do		2:1	600	0.5:1	35	14	5	5	.34	Numerous complex crystals.
7	John Brown, SE¼ sec. 5, T. 1 S., R. 19 W.	Dierks Lumber & Coal Co.	Blakely sandstone (quartzitic phase)	Simple vein 30 feet long and as much as 15 inches wide; strike, N. 42° E.			10:1	1,200	10:1	50	3	4	5	.31	45 percent of crystals smoky; about 55 percent have greatly enlarged rhombs; s and z forms abundant.
8	Diamond Drill Carbon Co. No. 5, NE¼NE¼ sec. 11, T. 1 S., R. 20 W.	do	Blakely sandstone (argillaceous phase)	Complex veins as much as 150 feet long and 10 feet wide; strike, N. 80°-85° E.	Calcite and kaolin		35:1	22,000	12:1	500	5	0	7	.72	Imperfect crystals as much as 75 pounds common; many phantoms shown by minute cavities.
9	E. C. Shaw area, SW¼NE¼ sec. 11, T. 1 S., R. 20 W.	E. C. Shaw	Blakely sandstone (argillaceous phase) and residuum	Irregular pockets in residuum; also complex veins as at Diamond Drill Carbon Co. No. 5.			20:1	5,000	17:1	40	1	9	5	.23	Much high-grade quartz (table 7) mined from upper 3 feet of soil. Quartz commonly frosted or matted; some unfaced.
11	Diamond Drill Carbon Co. No. 2, SE¼SE¼ sec. 2, T. 1 S., R. 21 W.	Dierks Lumber & Coal Co.	Blakely sandstone (argillaceous phase)	Simple and complex veins as much as 200 feet long and 2 feet wide; strike, E.-W.			20:1	6,000	3:1	20	7	4+	4+		80 percent of clear quartz crystals weigh less than ¼ pound; 24 percent of crystals show marked rhombohedral cleavage; elongate, doubly terminated forms common.
11	Ollie Bates, NW¼SW¼ sec. 1, T. 1 S., R. 21 W.	do	do	Simple and compound veins 100 feet long and 1½ feet wide; strike, E.-W.			12:1	250	3:1	12	5	4	4		Many crystals partly eye-clear weigh less than ¼ pound; single pocket of smoky crystals adjacent to pockets of colorless crystals in same vein; about 29 percent of crystals show rhombohedral cleavage; elongate, doubly terminated forms common.
12	Diamond Drill Carbon Co. No. 1, SE¼SE¼ sec. 1, T. 1 S., R. 20 W.	do	do	Simple veins and vein zones as much as 400 feet long and 3 feet wide; strike, N. 70° E.	Calcite		15:1	1,400	4:1	70	7	5	5	.74	More than 60 percent of the eye-clear quartz crystals weigh less than ¼ pound; about half of crystals have enlarged rhombs.
13	W. T. Beard, NW¼SW¼ sec. 12, NE¼SE¼ sec. 11, T. 1 S., R. 21 W.	W. T. Beard	do	Veins and vein zones as much as 500 feet long and 4 feet wide; strike, N. 75° E.	Calcite and siderite		25:1	500	7:1	25	15	6	6	.78	Extensively mined between 1890 and 1940 for display quartz; more than 60 percent of clear quartz crystals weigh less than ¼ pound.
14	Smith Point, sec. 5, T. 1 N., R. 19 W.	Ouachita National Forest	Jackfork sandstone	Irregular veins rarely more than 50 feet long and 3 feet wide.	Clay minerals		50:1	250	25:1						Mined sporadically for curio and museum specimens.
15	Wylie, NE¼SW¼ sec. 6, T. 1 S., R. 19 W.	A. C. Wylie	Blakely sandstone (quartzitic and argillaceous phase)	Vein zones as much as 50 feet long and 6 feet wide; strike, N. 38°-47° W.		Carbonaceous matter	20:1	1,000	5:1	38	2	1	6	.42	
16	Dierks No. 6, SW¼NW¼ sec. 31, T. 1 N., R. 19 W.	Dierks Lumber & Coal Co.	Womble shale	Veins and vein zones as much as 100 feet long and 2 feet wide; strike, N. 68°-72° W.			40:1	250	5:1	12	1	2	7		
17	Cruse Anderson, W¼SE¼ sec. 23, T. 1 S., R. 22 W.	Arkansas Power & Light Co.	do	Vein zones as much as 100 feet long and 25 feet wide; strike, N. 78°-80° W.			40:1		5:1						Relatively high proportion of crystals said to be partly eye-clear; carbonaceous matter widely disseminated in the quartz; extensive replacement of shale by quartz; mined during 1932-36. Massive veinlets and euhedra of adularia abundant.
18	Avant, NW¼SW¼ sec. 14, T. 1 S., R. 22 W.	A. C. Avant	do	Veins as much as 200 feet long and 2½ feet wide; strike, N. 82°-86° E.	Adularia and calcite		40:1	300	4:1	12	6	4+	4+		Mined in 1900-1910 and 1928-35 for display quartz; large proportion of crystals said to be eye-clear.
19	Young-Merriott, SE¼NW¼ sec. 21, T. 1 N., R. 19 W.	Dierks Lumber & Coal Co.	do	Veins as much as 375 feet long and 6 feet wide; strike, N. 75°-80° W.	Adularia		35:1		5:1						Adularia especially abundant in veins and crystal pockets.
20	Little Utley Mountain, NW¼NW¼ sec. 27, T. 1 N., R. 20 W.	Castleberry	do	Veins as much as 30 feet long and 3½ feet wide; strike, E.-W.	Adularia and calcite		30:1	100	4:1	¾	4	4+	4+		Extensive conversion of siliceous country rock into vein quartz.
21	Floyd Graves, NW¼NW¼ sec. 7, T. 2 S., R. 19 W.	Floyd Graves	Bigfork chert	Vein zone as much as 30 feet long and 2 feet wide; strike, N. 70° W.	Calcite		30:1	450	10:1	12½	12	5	5		Extensively mined in the early 1930's; many quartz crystals girdled by cavities of lamellar calcite.
22	Big Utley Mountain, SE¼SE¼ sec. 22, T. 1 N., R. 21 W.	Dierks Lumber & Coal Co.	do	Vein zones as much as 215 feet long and 6 feet wide; strike, N. 80°-90° E.	Calcite and limonite		40:1	250	7:1	3½	5	4+	4+		
23	Dierks No. 5, NW¼SW¼ sec. 7, T. 1 N., R. 19 W.	do	Stanley shale	Vein zone as much as 100 feet long and 3 feet wide; strike, N. 70°-80° E.	Chlorite	Chlorite	40:1	220	4:1	5½	7	5	5		Deposits mined largely for crystals containing chlorite phantoms.
24	East Coleman, W¼NW¼ sec. 7, T. 1 N., R. 19 W.	Ouachita National Forest	do	At least 6 veins as much as 75 feet long and 4 feet wide; strike, N. 80°-85° E.		Carbonaceous matter and chlorite	50:1	300	4:1	6¼	10	5	5		Mined about 1908 and again about 1928.
25	O. J. Blackman, SW¼ sec. 5, T. 1 N., R. 19 W.	O. J. Blackman	do	Vein zone as much as 175 feet long and 10 feet wide; strike, N. 80°-85° E.		Chlorite and carbonaceous matter	50:1		4:1						Said to have produced large proportion of partly eye-clear crystals weighing as much as 3 pounds each between 1930 and 1936.
26	Coleman, NE¼NW¼ sec. 14, T. 1 N., R. 20 W.	W. T. Coleman	do	Veins and vein zones as much as 200 feet long and 4 feet wide; strike, N. 70°-80° E.		Carbonaceous matter and chlorite	50:1		4:1						Many crystals contain phantoms and many aggregates of chlorite deposits in this area mined intermittently for 50 years.
27	Iron Springs, corners of secs. 26, 27, 34, 35, T. 2 N., R. 20 W.	Ouachita National Forest	do	Veins as much as 110 feet long and 7 feet wide; strike, N. 75°-80° E.	Chlorite and limonite		50:1	500	5:1	17½	12	6	6		Many crystals partly eye-clear; 90 percent weigh less than ½ pound; heavily encrusted with iron oxide; deposits deformed by surface creep.
28	Blue Mountain, NE¼SW¼ sec. 20, T. 1 N., R. 21 W.	do	Jackfork sandstone	Pockets of crystals as much as 50 feet long in slumped residuum; trend, E.-W.	Siderite and limonite	Carbonaceous matter	20:1	280	4:1	4¼	5	4+	4+		Numerous partly clear crystals, each weighing less than ½ pound, in clusters; many crystals deformed.
29	Deckard Mountain, NW¼SW¼ sec. 22, T. 2 N., R. 20 W.	do	do	Veins of highly irregular form; trend, N. 50°-75° E.	Reactorite		25:1	320	3:1						Veins in this area prospected and worked out about 1900.
30	Game Preserve, SE¼ sec. 35, T. 2 N., R. 20 W.	do	Atoka formation	Veins and vein zones as much as 150 feet long and 10 feet wide; strike, N. 75°-85° E.	Chlorite	Carbonaceous matter and chlorite	60:1		4:1						Most crystals small, possibly 15 percent with a little clear quartz at apex.
31	Angling Pinnacle, sec. 31, T. 2 N., R. 18 W.	do	Jackfork sandstone	Veins of irregular form; trend, N. 45°-85° E.	Reactorite	Carbonaceous matter	50:1	1,000							
<b>Montgomery County</b>															
32	Fisher Spur, SE¼NE¼ sec. 9, T. 3 S., R. 24 W.	Ouachita National Forest	Crystal Mountain sandstone	Veins and sheeted zones as much as 250 feet long and 6 feet wide; strike, N. 85°-90° E.		Carbonaceous matter	35:1	3,000	10:1	12	9	5	5	0.52	Veils and blue needles in the crystals.
33	Collier Creek, approximate center NW¼ sec. 20, T. 3 S., R. 24 W.	do	do	Stockwork, approximately 200 by 50 by 50 feet; trend, E.-W.	Siderite		25:1		15:1						Said to be source of fine clusters of partly clear crystals weighing less than ¼ pound, mined between 1865 and 1912; more than 60 percent of crystals distorted.
34	Monroe-Robbins, corners of secs. 2, 3, 34, 35, Tps. 2, 3 S., R. 25 W.	do	do	Veins and vein zones as much as 400 feet long and 4 feet wide; strike, N. 70°-80° E.			20:1	2,000	2:1						Contemporaneous deformation very well shown in many veins; more than 90 percent of clear quartz crystals weigh less than ¼ pound; clusters of minute, partly clear crystals.
35	J. Wheeler, about center sec. 6, T. 3 S., R. 24 W.	do	do	Vein as much as 40 feet long and 4 feet wide; strike, N. 74°-76° E.			20:1	400	10:1	2½					Veins and blue needles in most crystals.
36	Beck Mountain, NW¼ sec. 14, T. 3 S., R. 25 W.	do	do	Vein and vein zones as much as 110 feet long and 1½ feet wide; strike, N. 78°-80° E.	Dickite and siderite		20:1		8:1						Fine clusters of nearly clear crystals weighing less than ¼ pound each.
37	Mount Ida Mountain, NW¼SE¼ sec. 8, T. 3 S., R. 25 W.	do	do	Veins and vein zones as much as 75 feet long and 4½ feet wide; strike, N. 82°-86° E.	Calcite and dickite		20:1		8:1						Most crystals weigh less than ¼ pound each; lamellar calcite molds in vein quartz and some crystals; mined about 1928.
38	Joe Jones, SE¼NE¼ sec. 20, T. 3 S., R. 24 W.	Joe Jones	do	Vein zone as much as 80 feet long and 4 feet wide; strike, N. 84°-86° E.	Calcite, dickite, and siderite		20:1		10:1						Said to be source of many clusters of partly clear crystals weighing less than ¼ pound; mined between 1880 and 1910.
39	Howard-Sheffield, SW¼SW¼ sec. 4, T. 2 S., R. 24 W.	Ouachita National Forest	Womble shale	Veins as much as 300 feet long and 5½ feet wide; strike, N. 78°-82° E.	Calcite and adularia		40:1	2,000	5:1	18½	1	3	6	.07	Many excellent specimens of display quartz mined here by Rubin Howard of Mount Ida, Ark.
40	Kimes, W¼NE¼ sec. 27, T. 2 S., R. 23 W.	N. A. Kimes	do	Vein, 30+ feet long and 5 feet wide; trend, N. 75°-80° E.	Adularia		50:1		6:1						Said to have relatively high proportion of eye-clear quartz; mined about 1932 or 1935.
41	Silver, NW¼SE¼ sec. 30, T. 2 S., R. 23 W.	do	do	Vein zones as much as 40 feet long and 4 feet wide; trend, about E.-W.	Siderite, calcite, sphalerite, galena, and chalcopyrite		70:1		2:1						Locality extensively prospected for silver, lead, and zinc; quartz crystals small and of poor quality.
42	White Bluff, NW¼NE¼ sec. 21, T. 1 S., R. 24 W.	Ouachita National Forest	Bigfork chert	Vein zones and stockwork as much as 40 feet wide and 175 feet long; strike, E.-W.	Calcite and limonite		125:1		8:1						Clear quartz uncommon, but size of deposit and remarkable exposure in river bluff led to early prospecting for both quartz crystals and precious metals.
43	Crystal Point, approximate corners of secs. 15, 16, 21, 22, T. 1 S., R. 24 W.	do	do	Vein zones and stockworks as much as 30 feet wide and 300 feet long; strike, S. 80°-90° E.	Calcite		50:1	225	8:1	4¼	7	5	5		More than 40 percent of crystals have somewhat smoky cast with coating of iron oxide; s and z forms relatively abundant.
44	Diamond Drill Carbon Co. No. 3, SW¼NE¼ sec. 3, T. 1 S., R. 24 W.	do	Stanley shale	Veins and vein zones as much as 400 feet long and 6 feet wide; strike, N. 74°-76° E.	Dickite	Carbonaceous matter	50:1	500	6:1	55	1	12	6	.86	Explored for oscillator quartz by Diamond Drill Carbon Co. in 1913 with meager success.
45	Pigeon Roost, sec. 11, T. 4 S., R. 23 W.	do	do	Veinlets?		Clay, dickite, and water	2:1		1:25						Source of thousands of complex crystals (water crystals, than 1 ounce) and "water crystals."
46	Chalybeates Springs, SW¼NE¼ sec. 11, T. 1 S., R. 23 W.	Alta Linderman	Bigfork chert	Vein 60 feet long and as much as 4 feet wide; strike, E.-W.	Calcite and limonite		10:1		10:1	3	7				Said to be source of oscillators used in radio station KTHS, Hot Springs, Ark.; mined principally in early 1930's, molds of lamellar calcite abundant.
<b>Saline County</b>															
47	Hogan Green, SW¼ sec. 13, T. 1 N., R. 18 W.	Dierks Lumber & Coal Co.	Womble shale	Vein zone 30+ feet long and as much as 15 feet wide; strike, N. 70°-72° W.	Adularia	Carbonaceous matter	40:1	250	5:1	4	6	4+	4+		Principal mining about 1900; said to have been source of numerous partly clear crystals.
48	Beaudry, sec. 4, T. 1 N., R. 19 W.	do	do	Complex veins as much as 150 feet long and 5 feet wide; strike, roughly east.	Chlorite	Carbonaceous matter, dickite, and kaolin	60:1	2,000	10:1	50?	1	0	6	(?)	Sporadically mined for 50 years prior to 1947. Very few clear crystals; much curio quartz.
49	Fairebild, SW¼ sec. 28, T. 2 N., R. 17 W.	Ouachita National Forest	Stanley shale	Vein 40+ feet long and as much as 20 feet wide; strike, N. 75° W.	Chlorite and pyrite	Chlorite	30:1	2,000	1:25	27¼	1	4	6	0.74	Complex crystals, each commonly having a milky core, bordered by a thin zone of clear quartz, which may have a smoky rim.
50	Lake Sylvia, SW¼ sec. 17, T. 2 N., R. 17 W.	do	do	Veins as much as 35+ feet long and 10 feet wide; strike, N. 44°-46° W.			40:1	480	4:1	12¼	2	0	7		Most productive of numerous large, mostly massive, milky quartz veins along north shore of Lake Winona.
51	Noah Drennon, NW¼NW¼ sec. 7, T. 1 N., R. 17 W.	Noah Drennon	do	Veins as much as 60 feet long and 10 feet wide, aligned and echelon; strike, N. 60°-60° W.	Chlorite and adularia	Chlorite	40:1	700	4:1	6	9	5	5		Many display and curio crystals, some containing phantoms of chlorite. Numerous veins of milky quartz nearby.
52	Ralph Williams, SW¼SE¼ sec. 6, T. 1 N., R. 17 W.	Ralph Williams	do	Vein 20+ feet long and as much as 6 feet wide; strike, N. 70° W.	Chlorite	Chlorite and carbonaceous matter	35:1	680	4:1	4¾	1	0	6		Most crystals marred by veils.
53	Horace Godwin, NW¼ sec. 20, T. 1 N., R. 16 W.	Horace Godwin	do	Vein 70 feet long, as much as 10 feet wide; strike, N. 80° W.		Carbonaceous matter	45:1	900	3:1	12¼	12	5	5	.82	Many veils in crystals, which are not abundant.
54	Pritchard, SE¼ sec. 12, T. 1 N., R. 17 W.	L. Pritchard	do	Veins and vein zones as much as 500 feet long and 16 feet wide; strike, N. 55°-65° W.	Chlorite	Chlorite	40:1	500	4:1	2¼	6	4	4		Many veils in crystals.
55	H. L. Barber, NW¼ sec. 7, T. 1 N., R. 16 W.	H. L. Barber	do	Veins as much as 40 feet long and 4 feet wide; strike, N. 65°-65° W.			40:1	400	4:1	3¼	8	4	4		Numerous simple veins that are similar in adjoining tracts; superficially barren of crystals.
56	Smith Pinnacle, SE¼NE¼ sec. 34, T. 1 N., R. 19 W.	Ouachita National Forest	Jackfork sandstone	Veins as much as 100 feet long and 6 feet wide; strike, N. 70°-80° E.	Reactorite		25:1	160	1:4						Veins show extreme deformation and granulation; abundant reactorite; more than 80 percent of partly clear crystals weigh less than ¼ pound each.
<b>Polk County</b>															
57	Walter Bain, NE¼ sec. 5, T. 3 S., R. 29 W.	Walter Bain	Stanley shale	Veins as much as 30 feet long and 3 feet wide; strike, E.-W.	Chlorite	Chlorite and carbonaceous matter	50:1	500	4:1	2	8	5	5		Most crystals marred by veils.
58	Crystal Hill, about center sec. 31, T. 2 S., R. 29 W.	do	do	Veins as much as 100 feet long and 1 foot wide; strike, E.-W.			60:1		4:1						Crystals less than ¼ pound each and marred by numerous veils and fractures.
59	O. Wiles, center sec. 21, T. 2 S., R. 29 W.	Ouachita National Forest	do	Veinlets as much as 20 feet long and 1 foot wide; strike, N. 65°-75° W.	Dickite	Clay, water	3:1	50	1:35						Source of hundreds of small "water crystals" mined between 1900 and 1915.
<b>Yell County</b>															
60	F. Barber, approximate center SW¼ sec. 1, T. 1 N., R. 24 W.	Ouachita National Forest	Jackfork sandstone	Veins as much as 30 feet long and 1 foot wide; strike, about E.-W.	Dickite	Clay, water	1:1	225	1:40						Large "water crystals"; almost all crystals contain cavities with liquid and gas inclusions.
<b>Pulaski County</b>															
61	West Little Rock, sec. 29, T. 2 N., R. 13 W.	(?)	Jackfork sandstone	Vein zones and stockwork; veins as much as 5 feet wide.			25:1		18:1						Said to be source of many small partly clear crystals; more than 90 percent of clear crystals weigh less than ¼ pound each.