

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



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This document consists of 4 pages,
plus 1 plate, Series A

CATEGORY VI (Colorado Plateau
preliminary reserve estimate
for ore blocks)

UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

PRELIMINARY RESERVE STATEMENT 15

RESERVE BLOCK D, LEGIN GROUP AREA, SAN MIGUEL COUNTY, COLORADO

By

Henry Bell

May 1951

Trace Elements Memorandum Report 191

PRELIMINARY RESERVE STATEMENT 15
RESERVE BLOCK D, LEGIN GROUP AREA, SAN MIGUEL COUNTY, COLORADO

By Henry Bell

May 1951

Location: E $\frac{1}{2}$ sec. 28, T. 43 N., R. 19 W., New Mexico principal meridian.

Ownership: Government:
Public land
Sam claim; leased to T. H. Skidmore, lease No. AT-(05-1)-ML-1.
Private:
Black Jack claim; Sitton and Dulaney, Inc.
(according to affidavit of ownership, September 1950).
Uintah claim; W. E. Haldane, J. R. Munro, and D. G. Son
(according to affidavit of ownership, April 1950).

Access and
nearest mill: Three miles by graded dirt road to Colorado Highway 80, thence 42 miles via Colorado Highway 80 and U. S. Highway 160 to AEC Monticello mill.

Reference: Trace Elements Memorandum Report 200, February 1951.

Reserves: Reserves are calculated as in detailed reports on drilling projects, using a thickness cut-off of 1 foot, and grade cut-offs of 0.10 percent U₃O₈ or 1.0 percent V₂O₅. In reserve blocks penetrated by only two or three drill holes, drill-core samples may not necessarily be representative of the grade or thickness of the reserve block. Where assay values appear abnormal, data on the average grade of ore produced from nearby mines and the data from gamma-ray drill logs were used to supplement the assay data. This reserve statement is preliminary and subject to revision.

Block D: Indicated: 1,300 short tons; average 0.25 percent U₃O₈, 1.9 percent V₂O₅
Inferred: 2,500 short tons; average 0.30 percent U₃O₈, 1.7 percent V₂O₅.

Minimum depth to reserve block: 155 feet.

Minimum distance from reserve block to nearest mine working: about 690 feet northward to small inactive mine on the Black Jack claim; and about 830 feet westward to small mine on the Uintah claim.

PRELIMINARY RESERVE STATEMENT 15--Continued

Discussion: Reserve block D contains reserves in several overlapping masses, which are roughly tabular and perhaps contain local thickenings or rolls. These reserves are in a zone containing additional masses of mineralized rock. Most of these masses are below the thickness or grade cut-offs of the calculated reserves, although some material that is above the thickness and grade cut-offs may be present. If so, the minable reserves may total more than the calculated reserves.

None of the overlapping masses containing the reserves averages over 1.5 feet in thickness. These masses are cut by drill holes 270, 279, 288, and 299. A few additional holes are planned to be drilled in block D in late 1951 to define this block more completely. A supplementary report will be prepared if the reserve status of block D is altered by this additional drilling.

Table of assay and gamma-ray data, reserve block D,
Logan group area, San Miguel County, Colorado

Geological Survey exploration 1948-1950. Assays by the Geological Survey 1948-1951.

Assay data listed under "block D" are within the block of calculated reserves discussed in this report.

Assay data listed under "other holes" are within reserve blocks not discussed in this report, or are within areas from which no reserves are calculated because the samples recovered are too thin or too weakly mineralized to qualify for the selected grade and thickness cut-offs.

Gamma-ray intensity obtained by probing of drill holes with radiometric logging unit.
Abbreviations used for gamma-ray intensity:

- W Weak; concentrations of radioactive material in which the equivalent U_3O_8 content probably ranges from 0.05% to 0.09%.
- S Strong; concentrations of radioactive material in which the equivalent U_3O_8 content probably ranges from 0.10% to 0.99%.
- WS Very strong; concentrations of radioactive material in which the equivalent U_3O_8 content probably is 1.0% or more.

Note: Barren holes are omitted from this table. Holes with intensities no greater than the background effect of barren rock are listed as "barren."

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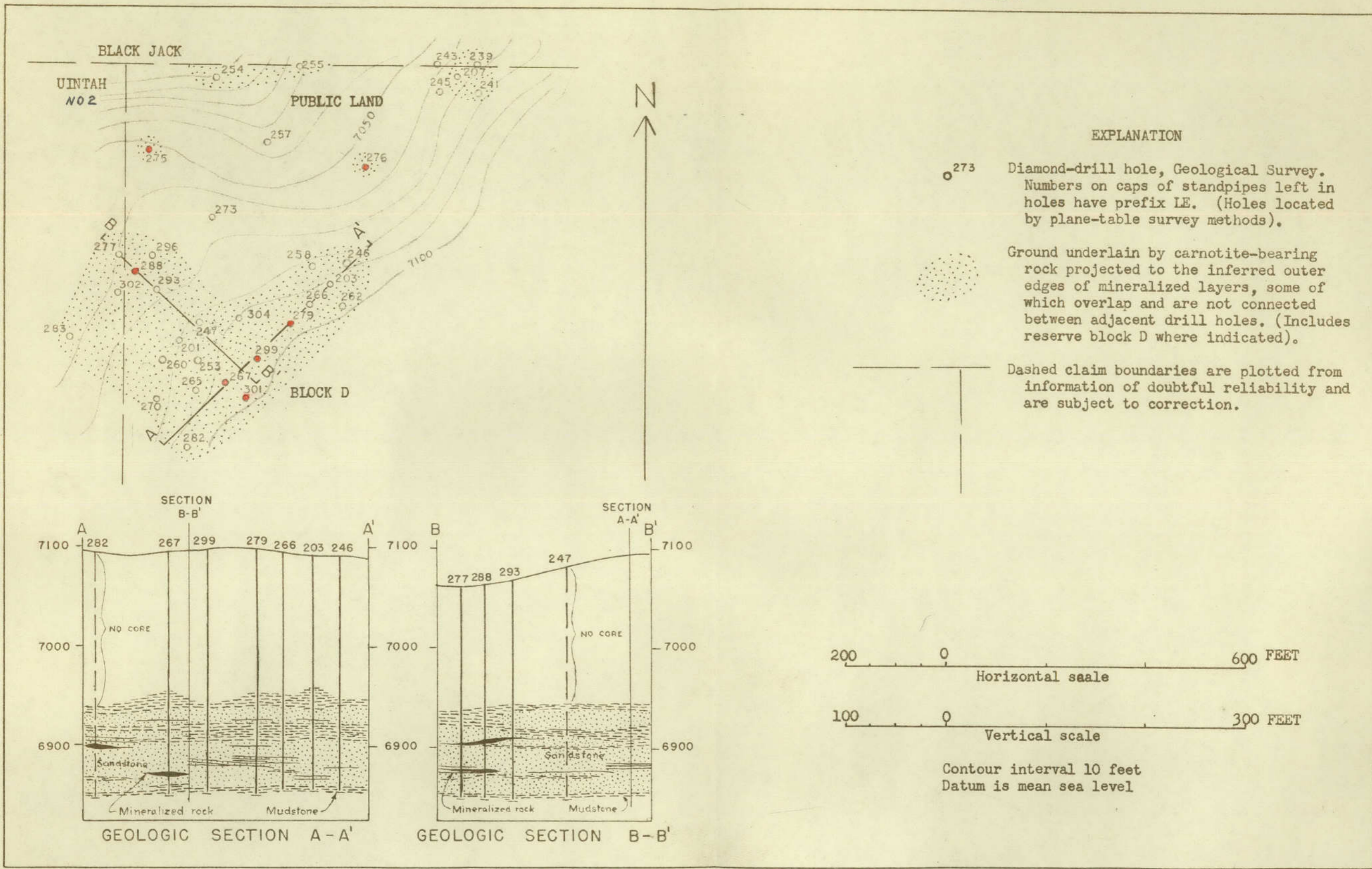
Hole No.	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Gamma-ray intensity	Depth in feet		Thickness (feet)
	From	To		U_3O_8	V_2O_5	$CaCO_3$		From	To	
Block D, Uintah claim and public land										
201	163.50	164.36	0.86	0.011	0.09	2.49	Not probed			
	164.68	165.30	0.62	0.006	0.17	7.5				
	172.70	173.83	1.13	0.012	0.19	1.82				
	174.16	174.76	0.60	0.007	0.27	2.6				
	175.30	176.16	0.86	0.012	0.64	0.27				
	176.71	177.78	1.07	0.014	0.11	2.09				
	178.24	180.13	1.89	0.011	0.40	1.06				
	185.30	195.40	0.10	0.097	1.21	6.3				
	185.40	186.71	1.31	0.053	0.80	5.0				
	194.90	195.30	0.40	0.005	0.27	0.05				
203	166.89	167.15	0.26	0.092	0.34	1.77	Not probed			
	221.74	223.35	1.61	0.043	0.12	14.3				
	225.20	225.83	0.63	0.015	0.17	1.39				
246	212.10	213.10	1.00	0.065	<0.05	4.5	W	210.0	210.8	0.8
247	164.90	166.10	1.20	0.018	0.09	2.8	W	163.6	164.5	0.9
	177.80	178.10	0.30	<0.01	<0.05	Undet.				
	206.85	207.35	0.50	0.012	0.07	3.8				
253	167.95	168.70	0.75	0.014	<0.05	0.8	W	166.0	166.9	0.9
	175.30	175.80	0.50	0.010	<0.05	1.5				
	176.80	177.80	1.00	<0.01	<0.05	Undet.				
	187.45	188.40	0.95	0.021	0.06	2.2				
	189.70	191.60	1.90	0.045	0.13	1.4				
	191.60	192.60	1.00	0.020	0.16	2.6				
	192.60	193.60	1.00	0.033	0.52	1.0				
	193.60	194.20	0.60	0.024	0.36	2.4				
	194.20	196.55	2.35	0.024	0.28	1.1				
258	158.00	158.50	0.50	0.032	0.05	5.7	W	157.2	157.9	0.7
	204.75	205.90	1.15	0.016	0.08	3.5				
260	171.10	171.90	0.80	0.009	0.08	3.5	W	162.0	162.5	0.5
	171.90	172.50	0.60	0.016	0.44	1.2				
	172.50	174.50	2.00	0.039	0.26	2.8				
	174.50	176.50	2.00	0.007	0.10	0.3				
	185.30	185.60	0.30	0.007	0.47	<0.1				
	185.60	186.30	0.70	0.068	2.72	<0.1				
262	219.60	220.10	0.50	0.025	0.34	2.5	W	215.7	216.0	0.3
	224.05	224.30	0.25	0.017	0.05	2.4				
265	174.90	175.90	1.00	0.031	<0.05	0.8	W	174.5	175.2	0.7
	178.85	182.50	3.65	0.013	0.09	1.2				
	182.75	184.90	2.15	0.017	0.12	2.4				
	184.90	185.90	1.00	0.071	0.16	4.7				
	185.90	188.40	2.50	0.012	0.06	1.8				

Table of assay and gamma-ray data, resource block by
 Logis group area, San Miguel County, Colorado--Continued

Hole No.	Depth in feet		Assay data			Gamma-ray data				
	From	To	Thickness (feet)	U ₃ O ₈	Percent V ₂ O ₅	CaCO ₃	Gamma-ray intensity	Depth in feet From To	Thickness (feet)	
Block D, Uintah claim and public land--Continued										
266	206.30	206.90	1.60	0.011	0.78	1.6	W	205.4	206.3	0.9
	210.65	211.90	1.25	0.014	0.87	2.7	W	211.1	212.0	0.9
							W	217.3	217.7	0.4
267	167.50	168.30	0.80	0.026	0.05	2.6	W	166.2	167.0	0.8
	219.50	220.50	1.00	0.051	0.20	3.0	W	219.8	219.7	0.9
	220.50	220.80	0.30	0.15	0.17	8.3	S	219.7	220.8	1.1
	220.80	222.70	1.90	0.099	0.26	10.5	W	220.8	222.5	1.7
	222.70	223.80	1.10	0.016	0.08	13.8	S	222.5	223.4	0.9
270	173.80	174.80	1.00	0.010	0.26	0.2	S	149.9	150.5	0.6
	174.80	175.60	0.80	0.023	0.33	<0.1	S	174.4	175.0	0.6
	175.60	176.45	1.05	0.098	1.13	<0.1	W	175.0	176.1	1.1
	176.45	177.00	0.55	0.028	0.50	<0.1				
277	158.55	158.50	0.25	0.003	0.12	3.2	Not probed			
	181.90	182.90	1.00	0.055	0.52	1.8				
	183.80	184.20	0.40	0.082	0.08	3.3				
	184.20	185.10	0.90	0.095	0.21	13.8				
	185.10	185.60	0.50	<0.01	<0.05	Undet.				
	186.10	187.10	1.00	0.030	<0.05	1.6				
279	170.55	171.35	0.80	0.061	0.07	2.7	W	211.4	211.9	0.5
	197.35	197.80	0.45	0.011	0.07	2.3	W	211.9	212.4	0.5
	207.05	207.60	0.55	0.096	0.21	2.2	S	212.4	212.8	0.4
	209.20	209.70	0.50	0.006	0.28	2.6	W	212.8	213.3	0.5
	210.27	210.45	0.25	<0.01	0.18	1.8				
	211.45	212.80	1.35	0.30	1.50	2.5				
	212.80	213.30	0.50	0.011	0.15	2.4				
	215.60	216.60	1.00	<0.01	0.07	Undet.				
282	184.20	186.05	1.85	0.015	<0.05	0.7	S	187.9	188.5	0.6
	186.70	189.05	2.35	0.010	0.17	3.0	S	189.5	189.9	0.4
	190.50	191.05	0.25	0.097	0.17	2.1	S	191.3	192.4	1.1
	191.05	192.75	1.70	0.066	0.14	7.5	W	192.1	192.8	0.7
	192.75	196.65	3.90	0.042	<0.05	2.5	S	193.7	194.3	0.6
							W	195.3	195.6	0.3
283	155.45	155.95	0.50	0.019	<0.05	0.7	Less than W throughout			
	156.70	156.95	0.25	<0.01	<0.05	Undet.				
**	156.35	156.85	0.50	0.021	0.13	4.3	VS	157.5	158.4	0.9
	156.85	157.20	0.35	0.24	0.23	0.8	S	158.4	159.2	0.8
	157.20	157.60	0.40	1.52	0.55	0.3	W	159.2	160.0	0.8
	157.60	158.50	0.90	1.07	7.95	0.5	S	160.0	160.7	0.7
	158.50	159.70	1.20	0.110	0.56	5.8	W	185.3	186.1	0.8
	159.70	162.00	2.30	0.012	0.21	4.5	S	186.1	186.6	0.5
	186.80	189.80	3.00	0.020	<0.05	9.7	W	186.6	186.9	0.3
	191.25	191.75	0.50	0.008	<0.05	4.5	W	187.6	188.4	0.8
							S	188.4	189.4	1.0
292	156.30	158.60	0.50	0.018	0.15	0.1	S	148.6	149.0	0.4
							W	157.2	158.3	1.1
296	186.20	186.80	0.60	0.025	0.15	3.4	W			
	191.50	192.75	1.25	0.023	0.13	5.0				
299	210.50	211.80	1.30	0.027	1.87	0.2	Not probed			
	211.80	212.40	0.60	0.015	0.13	2.8				
	213.40	214.60	1.20	0.031	0.50	1.7				
	215.15	215.50	0.35	<0.01	0.40	2.8				
	215.50	216.65	1.15	0.12	1.38	1.3				
301	216.00	216.80	0.80	0.097	1.59	0.4	S	196.5	197.8	1.3
	226.90	227.40	0.50	0.013	<0.05	4.3	W	207.3	207.5	0.2
	227.65	228.95	1.30	0.004	<0.05	21.4	W	208.2	209.1	0.9
	228.95	230.05	1.10	0.10	0.06	13.5	S	209.0	210.0	1.0
	230.05	231.70	1.65	0.037	0.07	15.7	VS	212.5	213.5	1.0
	231.70	232.80	1.10	0.93	0.41	15.3				
302	160.70	160.95	0.25	0.011	<0.05	1.0	W			
	161.45	161.70	0.25	0.013	<0.05	0.8				
	187.90	188.65	0.75	0.024	<0.05	6.0				
304	208.20	208.70	0.50	0.020	0.85	1.2	S			
							W	171.4	172.2	0.8
							W	209.0	209.5	0.5

Table of assay and gamma-ray data, reserve block D,
 Legio group area, San Miguel County, Colorado--Continued

Hole No.	Assay data			Percent			Gamma-ray intensity	Gamma-ray data		
	Depth in feet		Thickness (feet)	U ₃ O ₈	V ₂ O ₅	CaCO ₃		Depth in feet		Thickness (feet)
From	To	From					To			
Other holes										
207	181.85	182.27	0.42	0.009	0.36	4.8	Not probed			
	183.50	183.90	0.40	0.011	0.32	1.38				
	187.70	188.35	0.65	0.005	0.13	5.2				
239	172.40	172.65	0.25	0.018	0.05	1.4	Barren			
241	143.55	143.75	0.20	0.021	<0.05	<0.1	Barren			
254	80.54	81.79	1.25	0.016	0.26	4.6	W	80.9	82.0	1.1
	82.04	82.54	0.50	0.008	0.35	2.8	W	96.6	101.3	4.7
	99.48	102.28	2.80	0.015	0.07	6.6				
255	109.95	110.55	0.60	0.020	0.05	0.7	W	121.0	122.7	1.7
	118.40	120.30	1.90	0.013	0.16	3.0				
	120.85	123.80	2.95	0.017	0.15	6.7				
275	178.50	179.10	0.60	0.25	2.59	8.5	S	179.9	180.8	0.9
276	167.40	167.65	0.25	<0.01	0.21	5.1	S	168.7	169.6	0.9
	167.65	168.75	1.10	0.11	0.44	3.8	W	172.5	173.3	0.8
	168.75	169.35	0.60	0.026	0.22	5.5				
	172.00	174.05	2.05	0.022	0.09	2.6				



EXPLANATION

○ 273 Diamond-drill hole, Geological Survey. Numbers on caps of standpipes left in holes have prefix LE. (Holes located by plane-table survey methods).

Ground underlain by carnotite-bearing rock projected to the inferred outer edges of mineralized layers, some of which overlap and are not connected between adjacent drill holes. (Includes reserve block D where indicated).

Dashed claim boundaries are plotted from information of doubtful reliability and are subject to correction.

Map and geologic sections of reserve block D, E $\frac{1}{2}$ sec. 28, T. 43 N., R. 19 W.,
Legin group area, San Miguel County, Colorado

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