U. S. v. Robert Friedland

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File Owner: USGS- Docket No. OME-6344
File Location: Spokane, Washington

Bates #	Date	Document Title (type)	Description	# Pg	Addressee + Addressee's Organization	Author + Author's Organization	CC/BCC	Privilege	Comment
0001	5/22/73	Memorandum (memo)	response to request for legal advice on requirement to pay royalty on certain production from Summitville	6	Chief, OME	C. Brewster Chapman, Jr., DOI Office of the Solicitor.	none	CBI	Privilege asserted for pages 1,2 and 5 only, other pages released; copy of same document in file BOMSPOK 0002
0001	1964	Remarks OME 6344 (notes)	handwritten notes with chronology of work at the mine from 6/64 to 10/64	4	unspecified, unspecified	unspecified, unspecified	none	CBI	
0001	2/64	OME Reference Map Summittvile Mines, Plate 1 (map)	maps showing locations of exploration targets and underground workings	1	unspecified, unspecified	unspecified, DOI US Geological Survey	none	CBI	2 copies in this file

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Bates #	Date	Document Title (type)	Description	# Pg	Addressee + Addressee's Organization	Author + Author's Organization	CC/BCC	Privilege	Comment
0001	12/5/72	Letter (letter)	response regarding royalty due to government	9	Irving F. Moore, Wheeler Properties Inc.	Harold Kirkemo, Chief, DOI Office of Mineral Exploration	W.S. Moore Co. R.A. Hildebrand, Polaris Resources William A. Trebilock, Trebilock Mining Inc. Director's reading file Mineral Resources OME Docket OME Reading File OME Region III CLMartin	CBI	Privilege asserted for page 2, and pages 1-3 of the attachment only, other pages released copy of letter only in file BOMSPOK 0002
0001	11/66	Review of Contract 2189, WS Moore Co. (operator) Summitville Mines (report)	report of review describing purpose of project, contract terms, estimated costs	3	unspecified, unspecified	C.E. Fisher, Auditor, DOI Office of Survey and Review, Audit Operations	none	CBI	
0001	8/8/66	Justification for Amendment No. 4 (memo)	memo detailing reasons for amending contract and copy of amendment No. 4	7	File, DOI Office of Mineral Exploration	R.M. Smith & Harold Kirkemo, DOI Office of Mineral Exploration	Director's reading file Division file Economic Geology file OME Docket OME reading file	CBI	
0001	5/11/65	Exploration Contract, W.S. Moore Co. OME-6344 Amendment No. 3 (contract)	Amendment No. 3 to exploration contract	1	unspecified, unspecified	Acting Director, DOI, Office of Mineral Exploration	W.S. Moore Long Selfridge Solicitor's Office Johnson	CBI	

Bates #	Date	Document Title (type)	Description	# Pg	Addressee + Addressee's Organization	Author + Author's Organization	CC/BCC	Privilege	Comment
0001	1/65	Geochemical Map, North Annie Vein Area (map)	map of North Annie vein	1	unspecified, unspecified	Charles Melbye, Geological Engineer, W.S. Moore Co., Summitville Mines	none	CBI	copy of same map in file BOMSPOK 0002; 2 copies in this file
0001	8/28/64	Exploration Contract, W.S. Moore Co. OME-6344, Amendment No. 1 (contract)	Amendment No. 1 of exploration contract	2	unspecified, unspecified	Frank E. Johnson, Acting Director, DOI Office of Mineral Exploration	W.S.Moore Co. Murphy Long Talbert Solicitor's Office	CBI	
0001	8/24/64	Memorandum (memo)	documenting receipt of information from operator regarding change in contract, exploration area	1	File, DOI Office of Mineral Exploration	F.M. Murphy, Mining Engineer, DOI Office of Mineral Exploration, Division of Exploration Operations	Director's Reading File Docket	CBI	
0001	not dated	Exploration Contract, W.S. Moore Co., OME-6344, Exhibit A (contract exhibit)	description of work and costs	7	unspecified, DOI Office of Mineral Exploration [?]	unspecified, W.S. Moore Co.	none	CBI	copy of same document in file BOMSPOK 0002
0001	9/20/60	Unreadable (map)	map of Summitville mine workings, tunnels, adits	1	unspecified, unspecified	unspecified, unspecified	none	CBI	
0001	2/64	Geologic Map, Tewksbury Pipe (map)	shows cross-section, adits	1	unspecified, unspecified	Charles E. Melbye, Geological Engineer, W.S. Moore Co.	none	CBI	copy of same map in file BOMSPOK 0002
0001	not dated	Copy of General Land Office Map of Summitville Area (map)	shows patented claims	1	unspecified, unspecified	unspecified, unpsecified	none	CBI	copy of same map in file BOMSPOK 0002

Bates #	Date	Document Title (type)	Description	# Pg	Addressee + Addressee's Organization	Author + Author's Organization	CC/BCC	Privilege	Comment
0001	~~not dated~~	~~Map Showing Fractional Areas Held by Unpatented Locations, Summitville Mine (map)~~RELEASED	~~shows unpatented claims~~	~~1~~	~~unspecified, unspecified~~	~~unspecified, unpsecified~~	~~none~~	~~CBI~~	~~copy of same map in file BOMSPOK 0002~~
0001	2/64	Geologic Map, Copper Hill Knob Area (map)	shows veins, proposed drill holes	1	unspecified, unspecified	Charles E. Melbye, Geological Engineer, W.S. Moore Co.	none	CBI	copy of same map in file BOMSPOK 0002
0001	3/64	Geologic Map, Esmond-Pickens Cross-Vein Area (map)	shows veins, proposed bulldozer cuts	1	unspecified, unspecified	Charles E. Melbye, Geological Engineer, W.S. Moore Co.	none	CBI	copy of same map in file BOMSPOK 0002
0001	not dated	Surface Sketch Map, Dexter Vein (map)	shows proposed drilling	1	unspecified, unspecified	unspecified, W.S. Moore Co.	none	CBI	copy of same map in file BOMSPOK 0002
0001	3/17/64	Revisions to Application for Financial Assistance in Minerals Exploration (report)	reasons for revising drilling area, description of proposed work, cost estimates	10	unspecified, unspecified	unspecified, W.S. Moore Co.	none	CBI	
0001	2/16/64	Application for Financial Assistance in Minerals Exploration (report)	OME contract application, including description of operations, maps	22	unspecified, DOI Office of Mineral Exploration [?]	unspecified, W.S. Moore Co.	none	CBI	privilege applies to pages 5-22 only
0001	6/26/67	Memorandum (memorandum)	description of contract purpose, work, results to date	2	Chief, DOI Office of Mineral Exploration	J. William Hasler, Field Officer, DOI Ofice of Minerals Exploration	none	CBI	
0001	8/8/66	Exploration Contract, W.S. Moore Co., OME-6344, Amendment No. 4 (contract)	draft Amendment No. 4 to exploration contract, amending description of work	3	unspecified, unspecified	unspecified, DOI Office of Mineral Exploration [?]	none	CBI	

Bates #	Date	Document Title (type)	Description	# Pg	Addressee + Addressee's Organization	Author + Author's Organization	CC/BCC	Privilege	Comment
0001	6/21/66	Memorandum (memorandum)	response to memo, description of proposed work	1	Chief, DOI Office of Mineral Exploration	J. William Hasler, Field Officer, DOI Office of Mineral Exploration	none	CBI	
0001	5/23/66	Memorandum (memorandum)	response to memo, justification of proposed contract amendment	1	Chief, DOI Office of Mineral Exploration	J. William Hasler, Field Officer, DOI Office of Mineral Exploration	none	CBI	
0001	4/27/66	Memorandum (memorandum)	description of proposed additional exploration	1	Chief, DOI Office of Mineral Exploration	J. William Hasler, Field Officer, DOI Office of Mineral Exploration	none	CBI	
0001	3/30/66	Letter (letter)	description of proposed additional exploration	2	J. William Hasler, DOI Office of Mineral Exploration	Charles E. Melbye, Consultant, W.S. Moore Co.	W.S. Moore Co.	CBI	
0001	2/18/66	Memorandum (memorandum)	description of operator's desire to do additional exploration work	1	Chief, DOI Office of Mineral Exploration	J. William Hasler, Field Officer, DOI Office of Mineral Exploration	Chief, OME 6344 Chron Hasler	CBI	
0001	9/20/65	June-August, 1965 Narrative Report, Summitville Mines Project, W.S. Moore Co., Rio Grande County, Colorado (report)	report of exploration work during 6-8/1966	3	unspecified, DOI Office of Mineral Exploration	Charles E. Melbye, Geological Engineer, Consultant, W.S. Moore Co.	none	CBI	
0001	5/5/65	Exploration Contract, W.S. Moore Co., OME-6344, Amendment No. 3 (contract)	draft Amendment No. 3 to exploration contract	2	unspecified, unspecified	unspecified, DOI Office of Mineral Exploration[?]	none	CBI	
0001	9/2/65	Letter (letter)	description of additional exploration work	1	Hugh M. Connors, DOI Office of Mineral Exploration	Charles E. Melbye, Consultant, W.S. Moore Co.	none	CBI	

Bates #	Date	Document Title (type)	Description	# Pg	Addressee + Addressee's Organization	Author + Author's Organization	CC/BCC	Privilege	Comment
0001	11/26/65, 10/30/65	Operator's Monthly Voucher & Progress Report for month of Sept. 1965 (report)	report of Stage I and II costs, exploration work completed	11	unspecified, DOI Office of Mineral Exploration	Warren S. Moore, W.S. Moore Co.	none	CBI	
0001	11/26/65	Corrections to Operator's Monthly Voucher for month of Sept. 1965 (report)	corrected report of Stage I exploration work	4	unspecified, DOI Office of Mineral Exploration	Warren S. Moore, W.S. Moore Co.	none	CBI	
0001	9/27/65	Operator's Monthly Voucher & Progress Report for month of June-August 1965 (report)	report of Stage I costs, exploration work	5	unspecified, DOI Office of Mineral Exploration	Warren S. Moore, W.S. Moore Co.	none	CBI	
0001	7/27/65	Memorandum (memorandum)	discussion of proposed exploration work	2	Acting Field Office, DOI Office of Mineral Exploration	Frank E. Johnson, Chief, DOI Office of Mineral Exploration	Director's Reading File Division Economic Geology File OME File OME Reading File George C. Selfridge (2)	CBI	
0001	7/14/65	Letter (letter)	description of, justification for proposed additional exploration work	3	Hugh M. Connors, DOI Office of Mineral Exploration	Charles E. Melbye, Consultant, W.S. Moore Co.	W.S. Moore Co.	CBI	
0001	12/64	Geologic-Assay Map, Missionary Vein (map)	location of ore body and drill holes	1	unspecified, unspecified	Charles E. Melbye, Geologic Engineer, W.S. Moore Co.	none	CBI	
0001	12/64	Geochemical Map, Missionary Vein (map)	contour map	1	unspecified, unspecified	Charles E. Melbye, Geological Engineer, W.S. Moore Co.	none	CBI	

Bates #	Date	Document Title (type)	Description	# Pg	Addressee + Addressee's Organization	Author + Author's Organization	CC/BCC	Privilege	Comment
0001	5/5/65	Memorandum (memorandum)	discussion regarding additional exploration work	2	Acting Field Officer, Region III, DOI Office of Mineral Exploration	George C. Selfridge, Chief, DOI Office of Mineral Exploration	Director's Reading File Docket Review Committee Mr. Selfridge	CBI	
0001	4/15/65	Letter (letter)	review of present status, description of proposed additional work	3	Hugh M. Connors, DOI Office of Mineral Exploration	Charles E. Melbye, Consultant, W.S. Moore Co.	W.S. Moore Co.	CBI	
0001	not dated	OME-6344--Contract 2189 (notes)	handwritten notes with Stages I and II costs	2	File, unspecified	unspecified, DOI Office of Mineral Exploration [?]	none	CBI	
0001	11/24/64	Operator's Monthly Voucher & Progress Report for month of October 1964 (report)	report of Stage II costs, exploration work	6	unspecified, DOI Office of Mineral Exploration	Warren S. Moore, W.S. Moore Co.	none	CBI	
0001	11/64	Geologic Assay Log, Hole T-4 (map)	map of assays, N 60°E looking NW	1	unspecified, unspecified	Charles E. Melbye, Geologic Engineer, W.S. Moore Co.	none	CBI	
0001	10/24/64	Operator's Monthly Voucher & Progress Report for month of September 1964 (report)	report of costs and operations for Stages I and II	12	unspecified, DOI Office of Mineral Exploration	Warren S. Moore, W.S. Moore Co.	none	CBI	
0001	9/64	Geologic Assay Log, Hole T-1 & T-3 (map)	shows section looking north along coord. 7100N	1	unspecified, unspecified	Charles E. Melbey [sic], Geologic Engineer, W.S. Moore Co.	none	CBI	copy of same map in file BOMSPOK 0002
0001	10/64	Geologic Assay Log, Holes GD-3 & SD-1 (map)	shows section looking west along coord. 12,200N	1	unspecified, unspecified	Charles E. Melbye, Geologic Engineer, W.S. Moore Co.	none	CBI	copy of same map in file BOMSPOK 0002

Bates #	Date	Document Title (type)	Description	# Pg	Addressee + Addressee's Organization	Author + Author's Organization	CC/BCC	Privilege	Comment
0001	2/64	Hidden Vein Vertical Long Section (map)	shows looking S 30° W, OME Stage I bulldozer cuts	1	unspecified, unspecified	Charles E. Melbye, Geologic Engineer, W.S. Moore Co.	none	CBI	copy of same map in file BOMSPOK 0002
0001	9/64	Geologic Map, South Tewksbury Area (map)	shows location of quarry, vein	1	unspecified, unspecified	Charles E. Melbye, Geologic Engineer, W.S. Moore Co.	none	CBI	copy of same map in file BOMSPOK 0002
0001	9/21/64	Operator's Monthly Voucher & Progress Report for month of August 1964 (report)	report of completed work, costs	10	unspecified, DOI Office of Mineral Exploration	Warren S. Moore, W.S. Moore Co.	none	CBI	copy of same document in file BOMSPOK 0002
0001	9/29/64	Letter (letter)	drilling second hole on Stage II, description of assays	2	Hugh M. Connors, DOI Office of Mineral Exploration	Charles E. Melbye, Consultant, W.S. Moore Co.	W.S. Moore Co. (Reno, Summitville)	CBI	
0001	8/20/64	Operator's Monthly Voucher & Progress Report for month of June-July 1964 (report)	report of completed work, costs	10	unspecified, DOI Office of Mineral Exploration	Warren S. Moore, W.S. Moore Co.	none	CBI	copy of same document in file BOMSPOK 0002
0001	8/64	Geologic Assay Log, Hole T-1 (map)	shows section looking north	1	unspecified, unspecified	unspecified, W.S. Moore Co.	none	CBI	copy of same document in file BOMSPOK 0002
0001	not dated	Exploration Contract, W.S. Moore Co., OME-6344, Amendment No. 1 (contract)	unsigned amendment No. 1 to exploration contract	1	unspecified, unspecified	unspecified, DOI Office of Mineral Exploration [?]	none	CBI	
0001	8/24/64	Exploration Contract, W.S. Moore Co., OME-6344, Amendment No. 1 (contract)	draft contract amendment No. 1	2	unspecified, unspecified	unspecified, DOI Office of Mineral Exploration[?]	none	CBI	

Bates #	Date	Document Title (type)	Description	# Pg	Addressee + Addressee's Organization	Author + Author's Organization	CC/BCC	Privilege	Comment
0001	8/13/64	Letter (letter)	description of progress, preliminary findings	2	Hugh M. Connors, DOI Office of Mineral Exploration	Charles E. Melbye, Consultant, W.S. Moore Co.	W.S. Moore Co. (Reno, Summitville)	CBI	
0001	5/18/64	Draft starting with page 2, Exhibit A (report)	draft description of exploration work, costs	7	unspecified, unspecified	unspecified, unspecified	none	CBI	
0001	not dated	Moore 3rd draft (notes)	handwritten note describing exploration Stage I and II	3	unspecified, unspecified	unspecified, unspecified	none	CBI	
0001	not dated	Exploration Contract, W.S. Moore Co. Exhibit A (contract exhibit)	draft [?] exhibit with exploration information	6	unspecified, unspecified	unspecified, unspecified	none	CBI	
0001	4/17/64	Exploration Contract, W.S. Moore Co., OME-6344, Exhibit A (contract exhibit)	draft exhibit A stating purpose of project, exploration proposed, costs	7	unspecified, unspecified	unspecified, unspecified	none	CBI	
0001	4/4/64	Letter (letter)	description of exploration work	1	W.R. Griswold, Chief, DOI Office of Mineral Exploration	Charles E. Melbye, Consultant, W.S. Moore Co.	W.S. Moore Co.	CBI	
0001	3/31/64	Letter (letter)	questions about work proposed for exploration contract	1	Charles E. Melbye, W.S. Moore Co.	W.R. Griswold, Chief, DOI Office of Mineral Exploration	W.S. Moore Co. Director's Redng File Region III Docket	CBI	
0001	3/12/64	Memorandum (memorandum)	production records for Summitville	1	George C. Selfridge, Chief, DOI Office of Mineral Exploration	Hugh M. Connors, Acting Field Officer, DOI Office of Mineral Exploration	none	CBI	

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0001	3/10/64	Memorandum (memorandum)	discussion of proposed exploration at Summitville and Nye Molybdenum	2	Acting Field Officer, Region III, DOI Office of Mineral Exploration	George C. Selfridge, Chief, DOI Office of Mineral Exploration	Director's Reading File Review Committee Mr. Selfridge Docket OME-6231 Docket OME-6344	CBI	
0001	3/10/64	Memorandum (memorandum)	discussion of proposed exploration of possible OME contract at Summitville, contract at Nye Molybdenum	3	File, DOI Office of Mineral Exploration	George C. Selfridge, Chief, DOI Office of Mineral Exploration	Director's Reading File Docket OME-6231 Docket OME-6344 Mr. Selfridge	CBI	
0002	11/24/64	Operator's Monthly Voucher & Progress Report for month of October 1964 (report)	description of exploration work, costs	6	unspecified, DOI Office of Mineral Exploration	Warren S. Moore, W.S. Moore Co.	none	CBI	
0002	11/64	Geologic Assay Log, Hole T-4 (map)	map of assays, N 60°E looking NW	1	unspecified, unspecified	Charles E. Melbye, Geologic Engineer, W.S. Moore Co.	none	CBI	copy of same map in file BOMSPOK 0001; 2 copies in this file
0002	10/24/64	Operator's Monthly Voucher & Progress Report for month of September 1964 (report)	report of costs and operations for Stages I and II	13	unspecified, DOI Office of Mineral Exploration	Warren S. Moore, W.S. Moore Co.	none	CBI	contains one additional page than copy in file BOMSPOK 0001

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0002	9/64	Geologic Assay Log, Hole T-1 & T-3 (map)	shows section looking north along coord. 7100N	1	unspecified, unspecified	Charles E. Melbey [sic], Geologic Engineer, W.S. Moore Co.	none	CBI	copy of same map in file BOMSPOK 0001; 2 copies in this file
0002	10/64	Geologic Assay Log, Holes GD-3 & SD-1 (map)	shows section looking west along coord. 12,200N	1	unspecified, unspecified	Charles E. Melbye, Geologic Engineer, W.S. Moore Co.	none	CBI	copy of same map in file BOMSPOK 0001; 2 copies in this file
0002	2/64	Hidden Vein Vertical Long Section (map)	shows looking S 30° W, OME Stage I bulldozer cuts	1	unspecified, unspecified	Charles E. Melbye, Geologic Engineer, W.S. Moore Co.	none	CBI	copy of same map in file BOMSPOK 0001; 3 copies in this file
0002	9/64	Geologic Map, South Tewksbury Area (map)	shows location of quarry, vein	1	unspecified, unspecified	Charles E. Melbye, Geologic Engineer, W.S. Moore Co.	none	CBI	copy of same map in file BOMSPOK 0001; 2 copies in this file
0002	9/21/64	Operator's Monthly Voucher & Progress Report for month of August 1964 (report)	report of completed work, costs	10	unspecified, DOI Office of Mineral Exploration	Warren S. Moore, W.S. Moore Co.	none	CBI	copy of same document in file BOMSPOK 0001
0002	8/20/64	Operator's Monthly Voucher & Progress Report for month of June-July 1964 (report)	report of completed work, costs	10	unspecified, DOI Office of Mineral Exploration	Warren S. Moore, W.S. Moore Co.	none	CBI	copy of same document in file BOMSPOK 0001
0002	8/64	Geologic Assay Log, Hole T-1 (map)	shows section looking north	1	unspecified, unspecified	unspecified, W.S. Moore Co.	none	CBI	copy of same document in file BOMSPOK 0001

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0002	7/64	Annie Vein Dozer Cuts, Copper Hill Knob (map)	shows veins, cuts	1	unspecified, unspecified	Charles E. Melbye, Geological Engineer, W.S. Moore Co.	none	CBI	2 copies in this file
0002	2/64	Geologic Map, Tewksbury Pipe (map)	shows proposed OME drilling, veins	1	unspecified, unspecified	Charles E. Melbye, Geological Engineer, W.S. Moore Co.	none	CBI	copy of same map in file BOMSPOK 0001
0002	2/64	Geologic Map, Copper Hill Knob Area (map)	shows contours, veins, proposed drill holes	1	unspecified, unspecified	Charles E. Melbye, Geological Engineer, W.S. Moore Co.	none	CBI	copy of same map in file BOMSPOK 0001
0002	3/64	Geologic Map, Esmond-Pickens Cross-Vein Area (map)	shows contours, veins, proposed cuts	1	unspecified, unspecified	Charles E. Melbye, W.S. Moore Co.	none	CBI	copy of same map in file BOMSPOK 0001
0002	not dated	Surface Sketch Map, Dexter Vein (map)	shows proposed drilling	1	unspecified, unspecified	unspecified, W.S. Moore Co.	none	CBI	copy of same map in file BOMSPOK 0001
0002	not dated	Exploration Contract, W.S. Moore Co., OME-6344, Exhibit A (contract exhibit)	description of work and costs	7	unspecified, DOI Office of Mineral Exploration [?]	unspecified, W.S. Moore Co.	none	CBI	copy of same document in file BOMSPOK 0001
0002	not dated	Copy of General [land?] Office Map [of?] Summitville [Area] (map)	map of patented claims in Summitville area	1	unspecified, unspecified	unspecified, unspecified	none	CBI	some words on map are cut off, may have modification from GLO map; copy of what appears to be same map in file BOMSPOK 0001

Bates #	Date	Document Title (type)	Description	# Pg	Addressee + Addressee's Organization	Author + Author's Organization	CC/BCC	Privilege	Comment
0002	~~not dated~~	~~Map Showing Fractional Areas Held by Unpatented Locations, Summitville Mine (map)~~RELEASED	~~shows Summitville unpatented claims~~	~~4~~	~~unspecified, unspecified~~	~~unspecified, unspecified~~	~~none~~	~~CBI~~	~~copy of same map in file BOMSPOK 0001~~
0002	not dated	Notes (notes)	chronology of items in the file	3	unspecified, unspecified	unspecified, DOI Office of Mineral Exploration [?]	none	CBI	Privilege asserted for page 2 only
0002	not dated	Summitville Smelter Returns, 1971 Production (spreadsheet)	description of production, net smelter returns	2	unspecified, unspecified	unspecified, unspecified	none	CBI	
0002	5/22/73	Memorandum (memo)	response to request for legal advice on requirement to pay royalty on certain production from Summitville	6	Chief, OME	C. Brewster Chapman, Jr., DOI Office of the Solicitor.	none	CBI	Privilege asserted for pgs 1,2, and 5 only (for both copies); copy of same document in file BOMSPOK 0001; 2 copies in this file
0002	not dated	Background and Summary Information, W.S. Moore Co., Summitville Mine (notes)	background on history of OME contract, chronology of production	9	unspecified, unspecified	unspecified, unspecified	none	CBI	Privilege asserted for pgs 1-3 and 8 only
0002	12/26/74	Memorandum (memorandum)	discussion of royalty due, description of exploration work	2	Chief, DOI Office of Mineral Exploration	J. William Hasler, Field Officer, DOI Office of Mineral Exploration	none	CBI	
0002	12/6/73	Memorandum (memorandum)	discussion of maps, geology	2	Chief, DOI Office of Mineral Exploration	J. William Hasler, Field Officer, DOI Office of Mineral Exploration	none	CBI	

Bates #	Date	Document Title (type)	Description	# Pg	Addressee + Addressee's Organization	Author + Author's Organization	CC/BCC	Privilege	Comment
0002	10/25/73	Memorandum (memorandum)	discussion of exploration work performed	4	Chief, DOI Office of Mineral Exploration	J. William Hasler, Field Officer, DOI Office of Mineral Exploration	none	CBI	
0002	7/17/73	Memorandum (memorandum)	discussion of production information	4	Chief, DOI Office of Mineral Exploration	J. William Hasler, Field Officer, DOI Office of Mineral Exploration	none	CBI	
0002	5/9/73	Memorandum (memorandum)	discussion of facts in letter to Field Solicitor	8	Chief, DOI Office of Mineral Exploration	J. William Hasler, Field Officer, DOI Office of Mineral Exploration	none	CBI	Privilege asserted for pgs 3-4 only
0002	not dated	None (notes)	copy of adding machine tapes showing net smelter returns, royalties, production	1	unspecified, unspecified	unspecified, unspecified	none	CBI	
0002	10/17/72	OME 6344, Contract 2189 (letter)	copies of settlement sheets	16	unspecified, DOI U.S. Geological Survey	Ben R. Petrie, ASARCO	none	CBI	
0002	not dated	Summitville Smelter Returns, 1971 Production (spreadsheet)	handwritten spreadsheet showing production, smelter returns	1	unspecified, unspecified	unspecified, unspecified	none	CBI	
0002	10/11/72	Memorandum (memorandum)	production figures from Summitville	2	Chief, DOI Office of Mineral Exploration	J. William Hasler, Field Officer, DOI Office of Mineral Exploration	none	CBI	
0002	not dated	Summary--Gross metal [unreadable] from smelter settlement sheets--Summitville Mine (before deductions) (notes)	handwritten notes showing production	2	unspecified, unspecified	unspecified, DOI Office of Mineral Exploration	none	CBI	

Bates #	Date	Document Title (type)	Description	# Pg	Addressee + Addressee's Organization	Author + Author's Organization	CC/BCC	Privilege	Comment
0002	7/28/72	Letter (letter)	discussion of production, royalty due	2	R.A. Hildebrand, Polaris Resources Inc. & Summitville Inc.	Harold Kirkemo, Chief, DOI Office of Mineral Exploration	Irving S. Moore, W.S. Moore Co. William Trebilcock, Trebilcock Mining Director's reading file Mineral Resources OME reading file Region III Mr. Kirkemo	CBI	
0002	7/14/72	Statement of Settlement, Summitville Inc. (settlement sheets)	description of production, returns, costs	6	unspecified, Summitville Inc.	unspecified, Tacoma Smelter	none	CBI	
0002	7/21/72	Letter (letter)	discussion of royalty due	2	Chief, DOI Office of Mineral Exploration	J. William Hasler, DOI Office of Mineral Exploration	none	CBI	
0002	6/4/71	Memorandum (memorandum/report)	final field report for OME-6344	6	Chief, DOI Office of Mineral Exploration	William L. Emerick, Assistant Chief, DOI Office of Mineral Exploration	none	CBI	
0002	1/18/68	Letter (letter)	final report of work under exploration contract	15	Frank E. Johnson, Chief, DOI Office of Mineral Exploration	J.M. Madsen, W.S. Moore Co.	none	CBI	
0002	various 8/64-9/65	Geologic Assay Log for Holes GH-1, GD-1, GSA-1, GSA-2 (maps)	assay logs	4	unspecified, unspecified	Charles E. Melbye, W.S. Moore Co.	none	CBI	
0002	8/64	Esmond-Pickens Dozer Cuts (map)	location of vein, cuts	1	unspecified, unspecified	Charles E. Melbye, W.S. Moore Co.	none	CBI	

Bates #	Date	Document Title (type)	Description	# Pg	Addressee + Addressee's Organization	Author + Author's Organization	CC/BCC	Privilege	Comment
0002	1/65	Geochemical Map, North Annie Vein Area (map)	map of North Annie vein	1	unspecified, unspecified	Charles Melbye, Geological Engineer, W.S. Moore Co., Summitville Mines	none	CBI	copy of same map in file BOMSPOK 0001
0002	8/64	Geologic Assay Log, Hole T-2 (map)	description of vein, assays	1	unspecified, unspecified	Charles E. Melbye, Geologic Engineer, W.S. Moore Co.	none	CBI	
0002	12/64	Longitudinal Section, North Dexter Vein (map)	description of vein	1	unspecified, unspecified	Charles E. Melbye, Geologic Engineer, W.S. Moore Co.	none	CBI	
0002	2/64	Dexter Vein, Vertical Long Section (map)	description of exploration work, looking N	1	unspecified, unspecified	Charles E. Melbye, Geologic Engineer, W.S. Moore Co.	none	CBI	
0002	12/64	Longitudinal Section, Tewksbury Vein (map)	description of vein, workings	1	unspecified, unspecified	Charles E. Melbye, Geologic Engineer, W.S. Moore Co.	none	CBI	
0003	various	Various (maps)	various	11	unspecified, unspecified	Charles E. Melbye, Geologic Engineer, W.S. Moore Co.	none	CBI	copy of same maps in file BOMSPOK 0001 and/or 0002
0004	various	Various (maps)	various	24	unspecified, unspecified	Charles E. Melbye, W.S. Moore Co.	none	CBI	copy of same maps in file BOMSPOK 0001 and/or BOMSPOK 0002
0004	10/17/67	Final Report Summitville Mines Project, W.S. Moore Co. (report)	report summarizing exploration work under contract	13	unspecified, unspecified	Charles E. Melbye, W.S. Moore Co.	none	CBI	

Bates #	Date	Document Title (type)	Description	# Pg	Addressee + Addressee's Organization	Author + Author's Organization	CC/BCC	Privilege	Comment
0004	12/63	Geologic Map, Reynolds Level (map)	shows vein, mineralization	1	unspecified, unspecified	Charles E. Melbye, W.S. Moore Co.	none	CBI	
0004	12/64	Longitudinal Section, Annie Vein (map)	shows mineralization, mine workings	1	unspecified, unspecified	Charles E. Melbye, W.S. Moore Co.	none	CBI	
0004	3/66	Ida-Annie Open Cuts (map)	shows open cuts, vein	1	unspecified, unspecified	Charles E. Melbye, W.S. Moore Co.	none	CBI	
0004	5/57	Reynolds Tunnel Level (map)	shows location for recommended exploration	1	unspecified, unspecified	D.H. Richter, unspecified	none	CBI	
0004	1/64	Annie Vein Cross-Section Along Hole A-2 (map)	shows cross section, mineralization	1	unspecified, unspecified	Charles E. Melbye, Geologic Engineer, W.S. Moore Co.	none	CBI	

Extra Copy
Operations Final
Report

OME 6344

label file as
BOMSPOK 0003

U. S. v. Robert Friedland

Privilege Log BOMSPOK 0003-- Page 1 of 1

Repository Name: USGS - Spokane
Repository Location: Spokane, Washington
File Bates No. BOMSPOK 0003
File Owner: ~~Bureau of Mines~~ - DMEA U.S. Geol. Survey
File Location: Spokane, Washington

Date	Document Title (type)	Description	# Pg	Addressee + Addressee's Organization	Author + Author's Organization	CC/BCC	Privilege	Comment
various	Geologic Assay Log Hole T-1 & T-3; Geologic Assay Log, Holes GD-3 & SD-1; Geologic Assay Log, Hole T-4; Hidden Vein Vertical Long Section; Geochemical Map, North Annie Vein Area; Geologic Map, South Tewksbury Area (maps)	various	6	unspecified, unspecified	Charles E. Melbye, Geologic Engineer, W.S. Moore Co.	none	Statue	copies of same maps in files BOMSPOK 0001 and BOMSPOK 0002

FINAL REPORT
SUMMITVILLE MINES PROJECT
W. S. MOORE COMPANY

Rio Grande Co., Colorado
Docket No. 6344
Amended Contract No. 2189

INTRODUCTION

This report summarizes all exploration work and resulting ore reserves from the above contract. The discussion is limited to geologic descriptions and interpretations, since the summary of work and money spent will be covered in a separate report by V. G. Etem, Resident General Manager of the project.

ANNIE VEIN SUBPROJECT

Seven cuts have exposed the Annie vein system quite well. (See plan map). One vein extends the length of the area in a N 70°W direction, and is probably the "Portal Vein" at the Copper Hill portal, mentioned in early reports on the Summitville Mine. The width is good (8'-10'), but the gold-silver assays were quite low. Similar assays were obtained from a parallel vein 50 feet southwest. Copper assays were also run, and as expected, were very low in the oxide zone. The highest assay (5' .14 Au, 2.46 Ag, .171 Cu) is from a vein on top of Copper Hill Knob. Since this

is only 100' from the Hidden vein, it may be a split from this vein or a separate one within the Annie vein system. However, it is not ore-grade where sampled and does not appear to be a strong vein worth drilling at depth. Stage II of the Annie vein subproject did not appear warranted, and no further work was done.

TEWKSBURY PIPE SUBPROJECT

Results from this project were most encouraging since substantial ore reserves were found, and these will be further described under the ORE RESERVE section. Please refer to the South Tewksbury Area Geologic Map, the Tewksbury long-section, and the drillhole cross-sections for all data.

Hole T-1

In Hole T-1, a substantial oxide ore zone was found from 93'-110'. Average widths and grades are as follows:

Depth	Width	Oz Au	Oz Ag	$/Ton
93'-110'	17'	.25	3.54	$14.91
103'-110'	7'	.35	3.12	17.68

Because of the flat hole angle of -10°, the vein was intersected nearly at right angles and these are true widths. The vein is on the footwall side of the Tewksbury Pipe. Low-grade mineralization is present throughout the first 93 feet of the pipe which

consists of vuggy quartz or completely silicified quartz latite. Quartz-alunite alteration extends for 120 feet into the footwall of the Tewksbury Pipe, but does not appear to contain much disseminated mineralization. The balance of the hole showed moderate alteration of the argillic-chloritic type and weak to moderate pyritization. The vein correlates quite well with the high-grade surface zone sampled by Newmont Mining Company (Average assay is shown on cross-section), and very likely is an extension of the Tewksbury vein into the pipe itself.

Hole T-2

This hole also intersected ore in the Tewksbury Pipe. Widths and grade are substantial, particularly over 15 feet, and a 35-foot lower-grade zone may also be considered as ore. The following averages illustrate the encouraging results.

Depth	Oz Au	Oz Ag	$/Ton
5'-40'	.20	6.80	$18.83
25'-40'	.33	10.9	30.52

Because of the flat angle, widths as given are all true.

The deeper veins at 295'-310' and 322'-329' are probably part of the Parole vein, but Hole T-2 would intersect the vein at a very acute angle, and the results cannot be considered as too reliable.

Hole T-3

Drilling intersected two veins, the T-1 vein near the collar, and the main Tewksbury vein in 3 segments from 130'-188'. Only the hangingwall vein portion of the Tewksbury is of interest, where 5 feet assayed .02 oz Au and 8.81 oz Ag, a gross value of $16.03/Ton. Although this width and grade is presently marginal, it does illustrate the persistence of substantial values to a depth 325 feet below surface and helps confirm the orebody drilled in Holes T-1 and T-2. Vein T-1 was low-grade but does have persistent silver values over 18 feet. The indicated flattening of dip is somewhat exaggerated on the cross-section, since T-3 is 30 feet ahead of the section, and the vein strike of N 30°W is not at right angles to the E-W section.

Hole T-4

The Tewksbury vein was cut from 408'-413', for a true width of 3.5 feet. This was the 4th hole in succession which found ore in the Tewksbury Pipe area. This interval assayed .04 oz Au, 8.9 oz Ag, and 2.93% Cu, or a gross value of $39.54/Ton. The footwall was quite barren, but 5 feet of the hangingwall assayed 1.44 oz Ag and 0.24% Cu. As is typical with the Tewksbury vein, the quartz-alunite alteration envelope extended only 5'-10' into

each wall. This hole is unusually favorable since it extends the ore, found in previous DMEA drilling below the Iowa level, to ore found under this program farther south. Total strike length is at least 500 feet. It also extends the known orebody above the Iowa level to a depth 250 feet below.

Another vein was intersected from 59'-79', and quartz-alunite alteration extended from this vein to surface. None of this zone was of ore-grade, but silver is consistently present at about 1 oz/ton, and the interval 66'-71' assayed .025 oz Au and 1.1 oz Ag. No copper assays were run on this upper vein, which is in the leached oxide zone. Hole T-4 showed the first substantial copper assays as the sulphides, enargite and tennantite, since Holes T-1, T-2, and T-3 were all more oxidized and leached. The rock between the two veins is strongly argillized quartz latite porphyry with considerable chlorite. Another weak vein was found between, which might correlate with the T-1 vein, as found in Holes T-1 and T-3.

Parole Vein

Although this vein was not drilled, surface sampling showed appreciable silver values, and the increased silver prices make this vein more attractive for future exploration. Surface mapping shows a somewhat erratic vein extending for 600 feet along strike.

HIDDEN VEIN SUBPROJECT

All data is shown on the Hidden Vein Long-Section, as no plan map was prepared of the bulldozer cuts.

Hole GH-1

This hole was planned to explore the Hidden vein 200'-250' below the ore-grade outcrop at surface. The projected vein should have been intersected at from 300'-320', but only disseminated pyrite was found, and the hole was continued to 360 feet. A strong fault with pyrite mineralization was cut at 340'-343', which is believed to represent the expression of the vein at this depth. Evidently the Hidden vein does not have the same depth continuity in this area as in the old workings 500 feet north, and it was recommended that Hole GH-2 not be drilled.

Hidden Vein Bulldozer Cuts

Two of the four cuts found vein material along the projected strike of the Hidden vein. Locations and assays are shown on the enclosed long-section. Cut #1 showed quartz-alunite alteration but no vuggy quartz vein. The second cut north of the old prospect shaft on the Hidden vein contained a narrow vein 1.5 feet wide, which assayed .23 oz Au and 7.03 oz Ag. Cut #3, in the drainage north of the Iowa dump, did not find vein material only 70 feet along strike from the outcrop, thereby indicating

an erratic nature to the Hidden vein in this area. An aplite dike was present. Cut #4, between the Iowa boarding house and the Iowa dump, cut a substantial 9-foot vein, but the assays were low.

In view of the erratic nature of the Hidden vein, both from the bulldozer cuts and Hole GH-1, no further work appeared to be warranted and this subproject was discontinued.

DEXTER VEIN SUBPROJECT

Two holes were completed under this subproject, both planned to explore the Dexter vein in the oxide zone below the very substantial outcrop on surface and above where sulphide ore has been found on the Chandler level. (See Dexter vein long-section).

Hole GD-1

This hole intersected the vein near the intersection with the Highland Mary vein. Although the vein was strong, copper values were leached away and gold-silver values were likewise low, as evidenced by the assays on 4.5 feet (.09 oz Au and .05 oz Ag).

Hole GD-3

After Hole GD-3 was completed under the OME contract, the operator has drilled a deeper hole to pierce the Dexter vein well

down in the sulphide copper zone. Both this hole, SD-1, and GD-3 are shown on the same cross-section. Hole GD-3 intersected a wide but weakly mineralized vein from 97'-114', which was the only vein of consequence found. This was believed to be the main Dexter vein until Hole SD-1 was completed, which intersected a wide ore-grade vein directly below this and another directly below the previously known Dexter vein on the Chandler level. Since 10 feet of core was lost in going through the old workings in Hole GD-3, the old working must have been driven on the Dexter vein proper. This new vein to the north was practically unknown except for meager surface evidence. It has been termed the North Dexter vein, and the original one, the South Dexter vein. The grade in Hole SD-1 is remarkably good; 59 feet averages .028 oz Au, 1.23 oz Ag, and 3.89% Cu.

The Dexter adit, directly below, was reopened and sampled at the Operator's expense, with only low-grade values found. The vein width, however, was wider than the drift in most places. These results, combined with those from Holes GD-1 and GD-3, indicate that the oxide zone of the Dexter vein is generally too low-grade to have any possibility for other than very small pods of ore, and no further drilling was justified. The very

substantial copper values found in the sulphide hole, SD-1, 285 feet below, were apparently leached away in the oxide zone.

ESMOND-PICKENS CROSS VEIN SUBPROJECT

A series of cuts were planned to open up the complex of cross veins in the vicinity of the Esmond and Pickens veins. Although the veins continued to the west and the widths were good, the grade was low (See plan map), thereby making further drilling under Stage II inadvisable.

Later rehabilitation by the operator of the North Tewksbury drift afforded a look at these veins at the Reynolds level. The veins were again strong, but low-grade, thereby indicating that extensive reserves are not likely on these cross-veins.

ANNIE VEIN - NORTH EXTENSION

This work was approved by a later amendment to the contract and consisted of drilling to explore a geochemical anomaly on the north extension of the Annie vein in an area which has seen no exploration or mining of any kind. A copy of the geochemical and drillhole map is included.

Hole GSA-1

This hole penetrated the heart of the strong geochemical anomaly which strikes northwestward and was believed to represent the

extension of the Annie vein. However, no silicified vuggy vein material was found and only weak quartz-alunite alteration near the bottom of the hole. The quartz-latite porphyry, found throughout the hole, shows strong chlorite-montmorillonite alteration and is usually strongly brecciated with the fragments cemented by quartz, calcite, and pyrite with occasional copper sulphide, which is very likely enargite. The only structure approaching that of a vein was from 98'-108', where a silicified fault zone was found. The assay from 103'-108' was .022 oz Au, .10 oz Ag, and .11% Cu.

Three assays from a typical section of brecciated quartz latite porphyry with abundant pyrite and some enargite were run. These showed only minor gold and silver, but a composite ran .084% Cu. Although this copper content is far from ore-grade, it is nevertheless very appreciable, and, based on visual logging, a large portion of this hole will very likely assay similarly. This disseminated copper content over a width of at least 200 feet could easily be the cause of the geochemical anomaly and most likely is the cause.

Hole GSA-2

This hole again penetrated the heart of the geochemical anomaly and was continued an extra distance to the northeast to be

certain of not missing a vein in case the Cropsy Creek fault displacement was greater than expected. As with Hole GSA-1, no silica vein was found, but the quartz latite porphyry showed strong brecciation and argillic alteration for the first 320 feet, with the breccia cemented with quartz, calcite, and 5-10% pyrite. Disseminated enargite can be seen throughout. Two samples were assayed and one showed no copper and the other .13% Cu. It is estimated that much of the breccia zone would assay close to 0.1% Cu. It is quite apparent that the substantial width of disseminated copper sulphides has accounted for the geochemical anomaly. Since the gold-silver content is also low, there was no justification for drilling the 3rd authorized hole farther northwest.

ORE RESERVES

All sulphide ore reserves are put in the probable category, although a portion might be classed as positive. In line with past OME practice, no possible reserves are included in the figures. On the long-section, this is Block T-5. The oxide reserves are also classed as probable. No distinction was made for the portions mineable by open-pit or underground methods, but it is believed that a substantial portion of the oxide may be mined by open-pit methods. These reserves are

shown as Blocks T-1, T-2, and T-3. Blocks T-4 and T-6 should be ignored as they are possible blocks.

A tonnage factor of 11 cubic feet/ton is employed. Metal prices used are those in effect at the present time: Oct., 1967

Gold $35/oz, Silver $1.74/oz, and copper 38¢/lb.

Respectfully submitted,

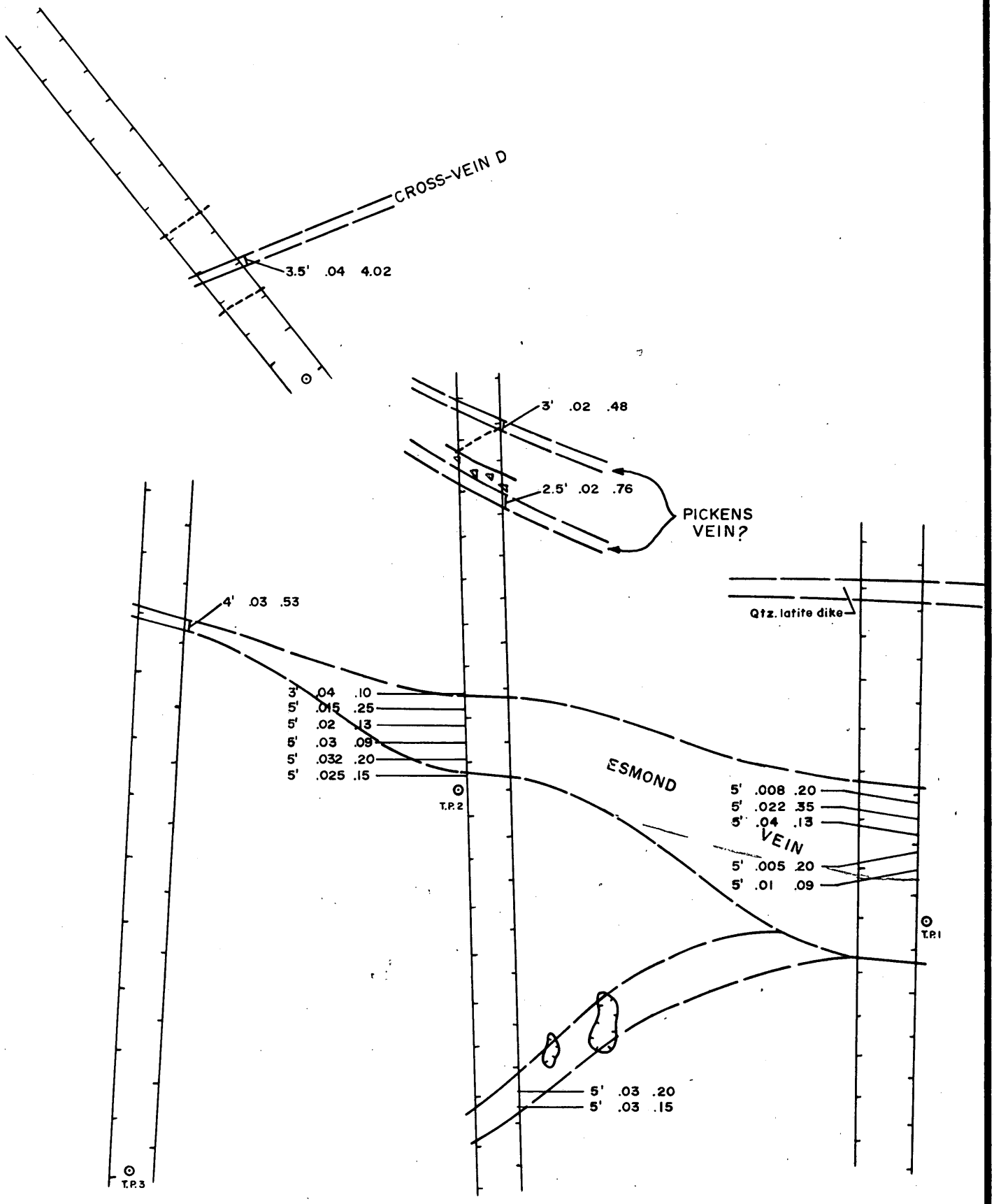
Charles E. Melbye

Charles E. Melbye
Cert. Prof. Geol. #344

October 17, 1967

TABLE 2 SUMMITVILLE ORE RESERVE SUMMARY

Vein	Vein Width	Tonnage	Oz Au	Oz Ag	% Cu	Gross Value Per Ton
SULPHIDE ORE - PROBABLE:						
Tewksbury Vein (Sulphide)	8.0'	39,500	.17	4.70	3.24	$38.75
OXIDE ORE - PROBABLE:						
Tewksbury Vein	14.6'	86,970	.19	7.08	----	$18.97



W.S. MOORE CO.

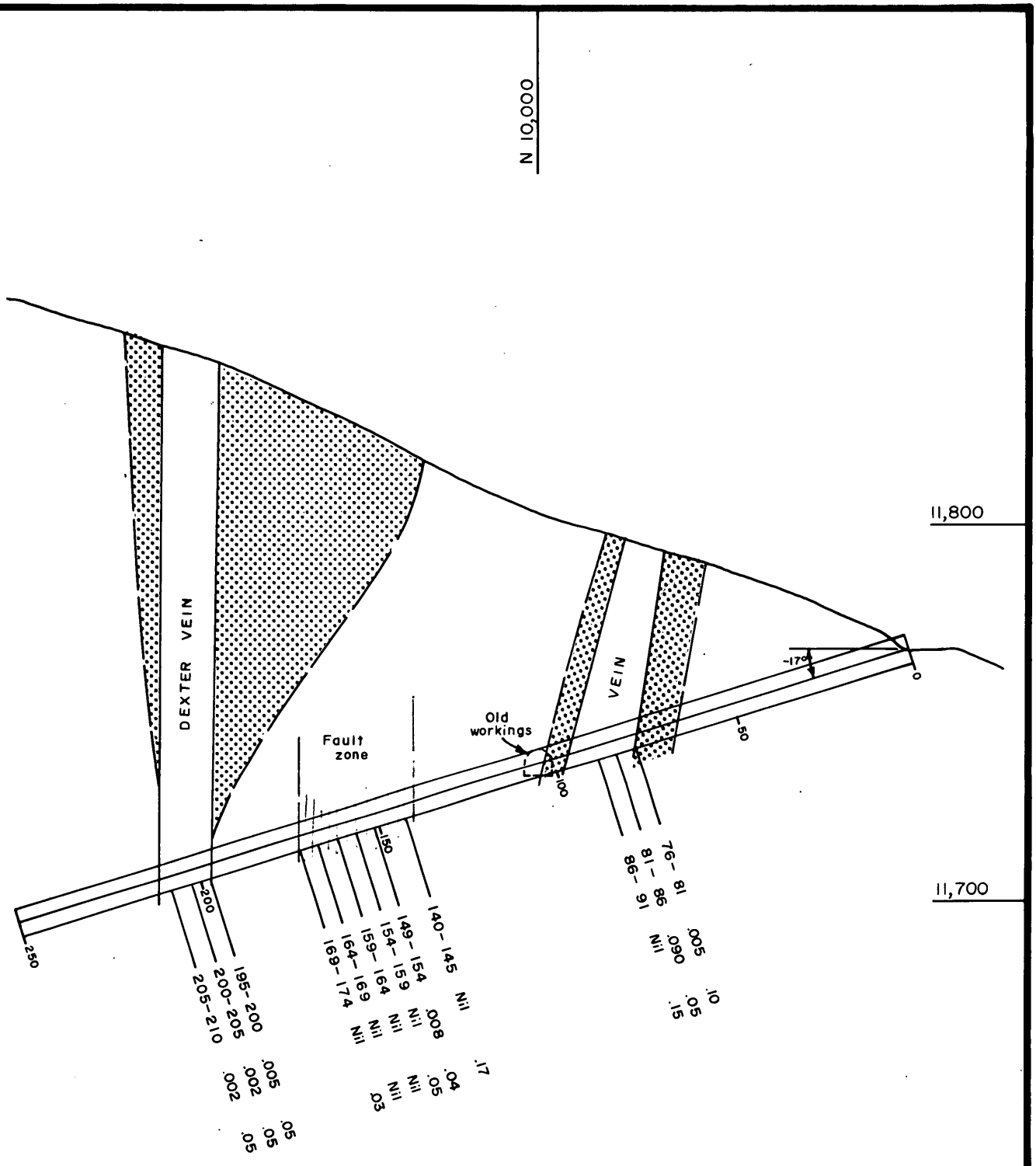
ESMOND-PICKENS DOZER CUTS

SUMMITVILLE MINES

Scale: 1"=40' August 1964

C.F. LIPP

CHARLES E. MELBYE
Geological Engineer



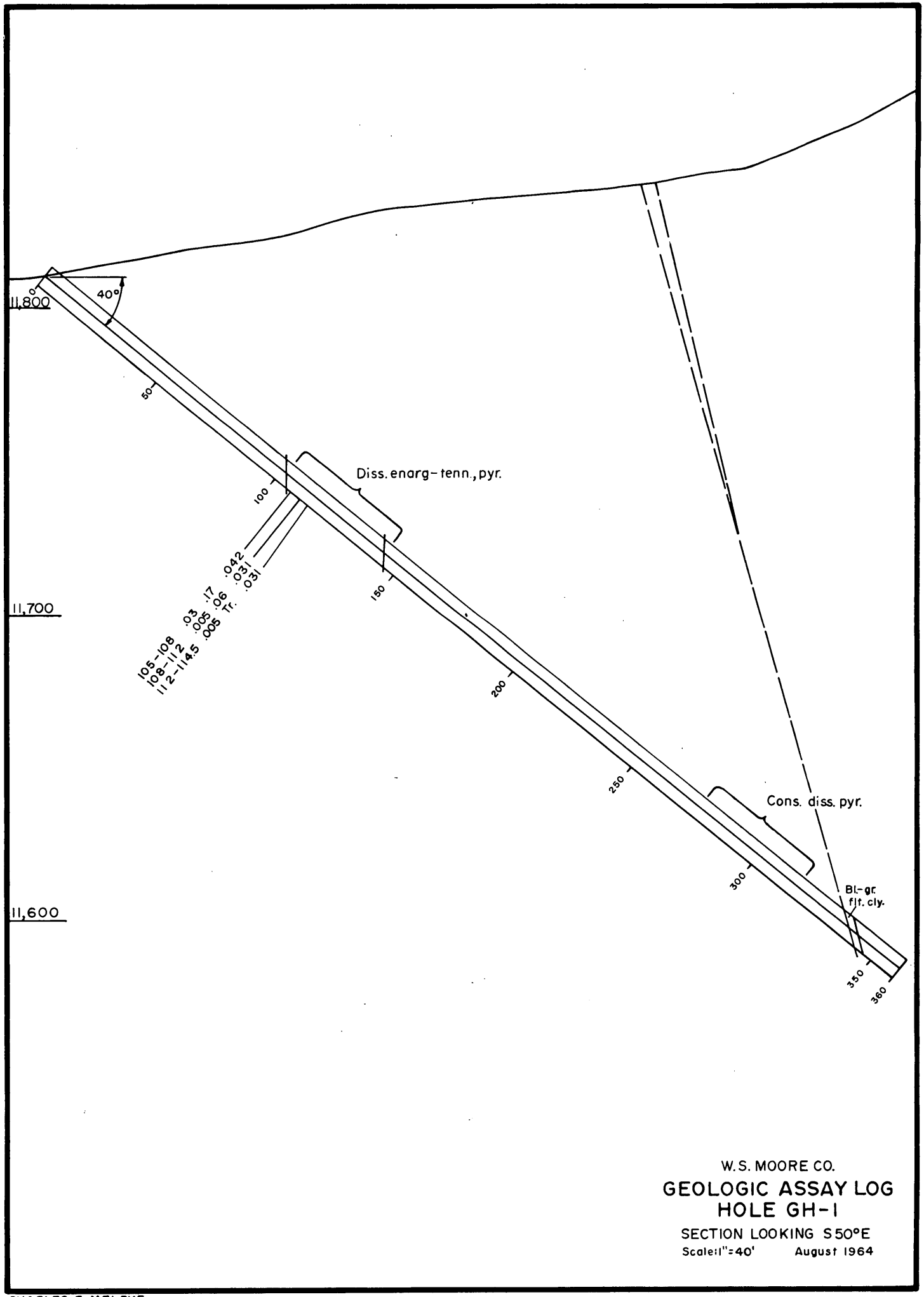
W. S. MOORE CO.

GEOLOGIC ASSAY LOG
HOLE GD-1

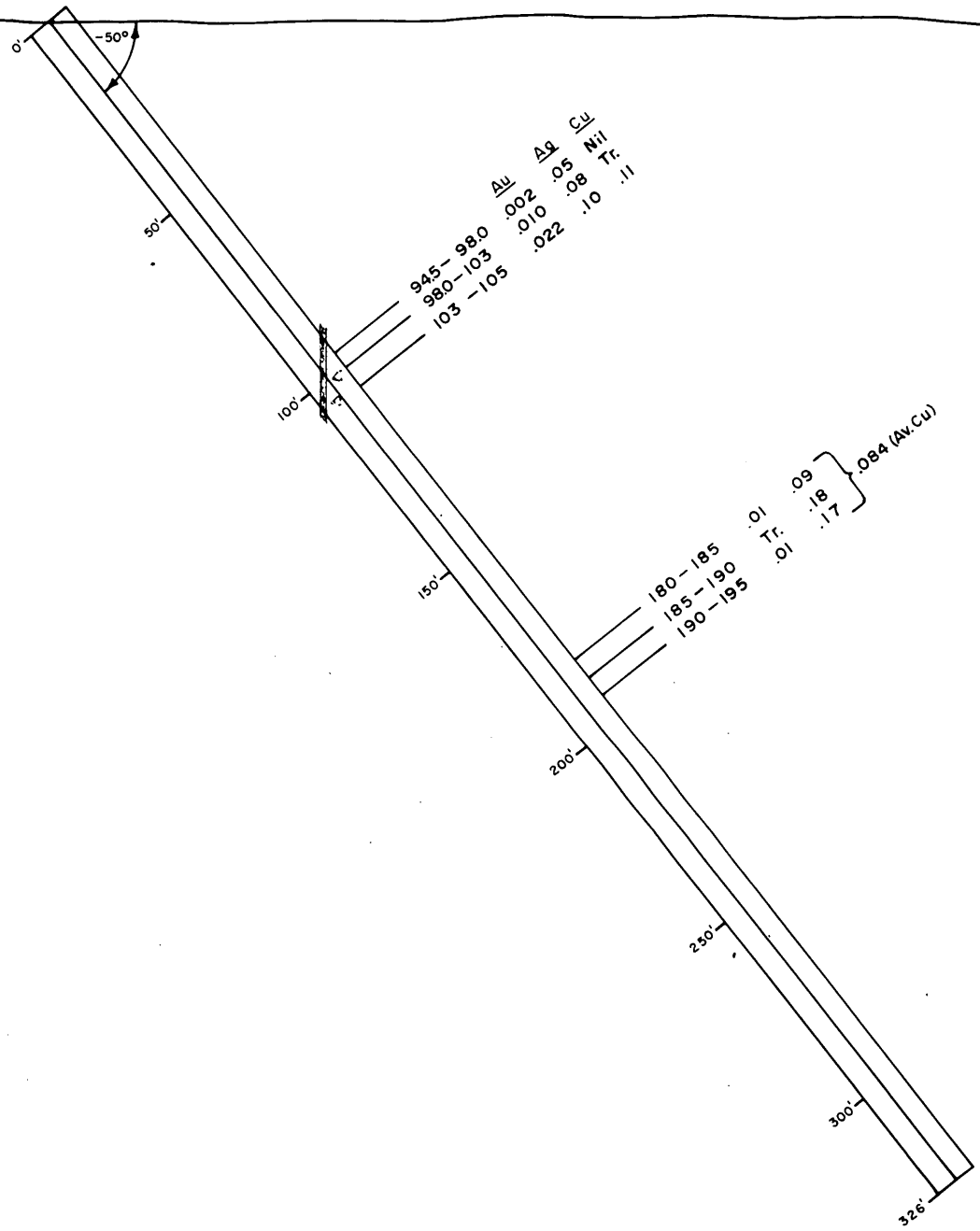
SECTION LOOKING WEST

Scale: 1"=40' September 1964

CHARLES E. MELBYE
Geological Engineer



CHARLES E. MELBYE
Geological Engineer



W.S. MOORE CO.

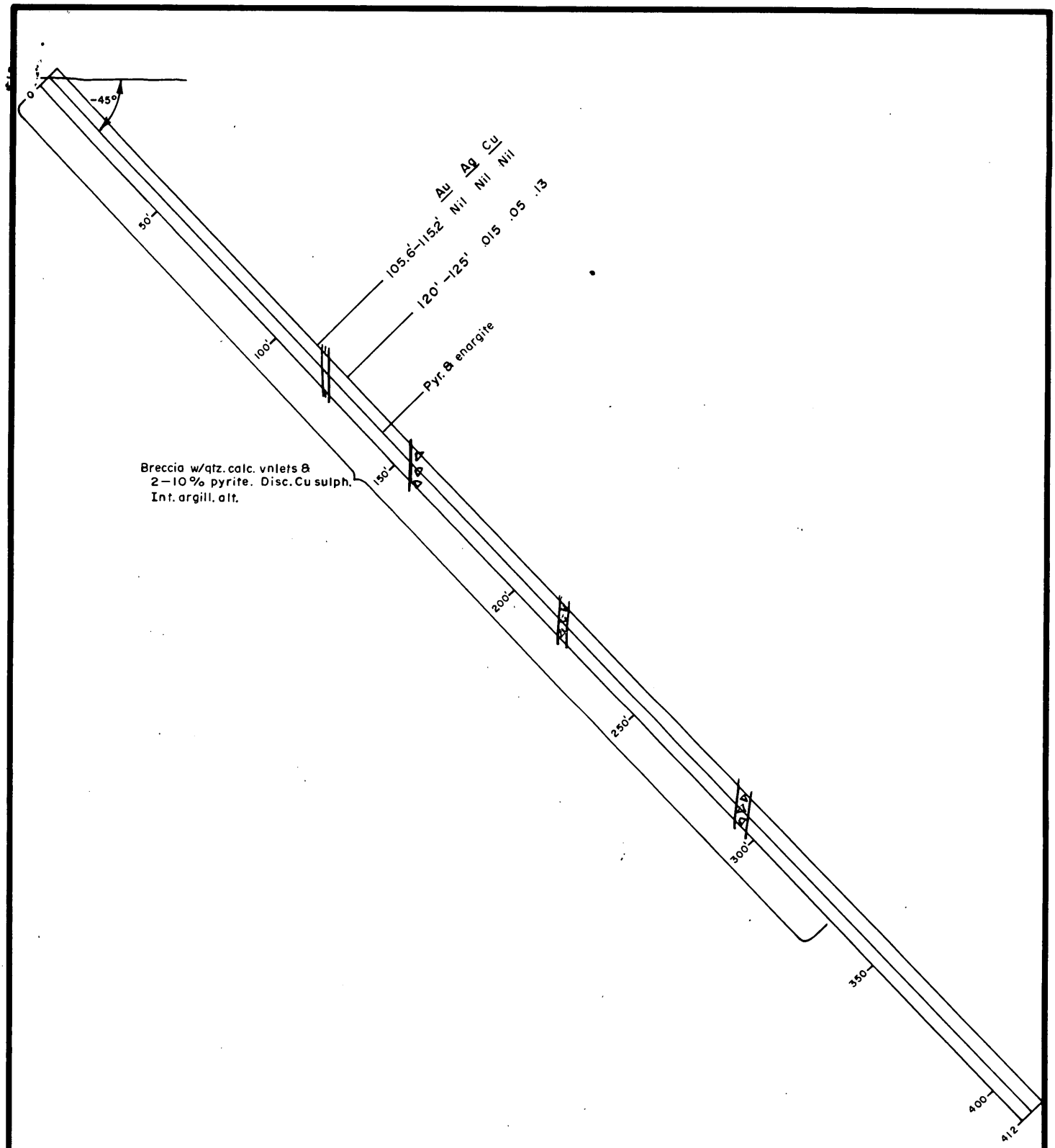
SUMMITVILLE MINES

GEOLOGIC-ASSAY LOG
HOLE GSA-1

SECTION LOOKING N.

Scale: 1"=40' September, 1965

CHARLES E. MELBYE
Geological Engineer



W.S. MOORE CO.

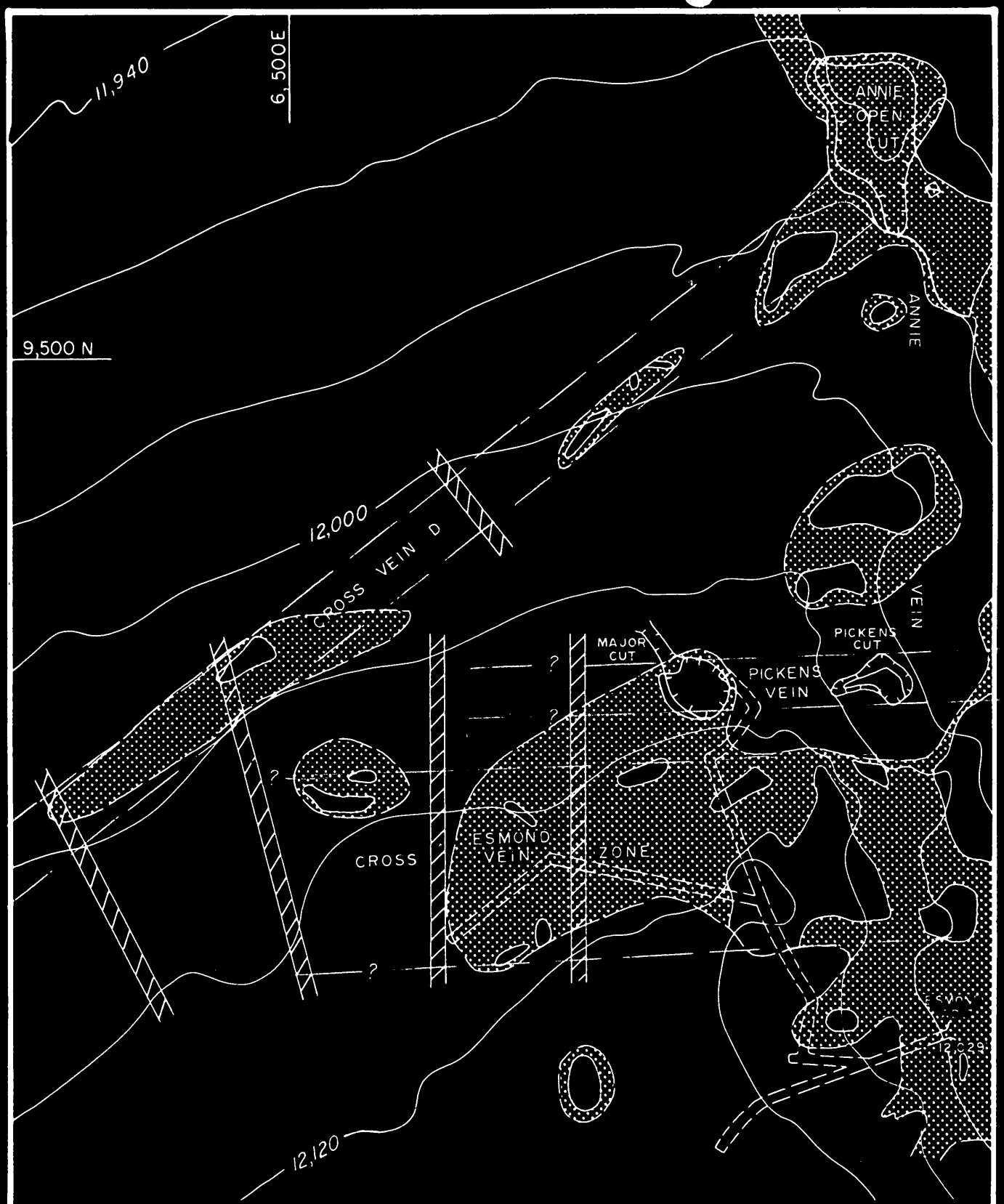
SUMMITVILLE MINES

GEOLOGIC-ASSAY LOG
HOLE GSA-2

SECTION LOOKING N.

Scale: 1" = 40' September, 1965

CHARLES E. MELBYE
Geological Engineer



LEGEND

Vein-vuggy quartz

Quartz alunite alteration and disseminated Au—Ag mineralization

Proposed bulldozer cut

W.S. MOORE CO.

SUMMITVILLE MINES

GEOLOGIC MAP

ESMOND-PICKENS

CROSS-VEIN AREA

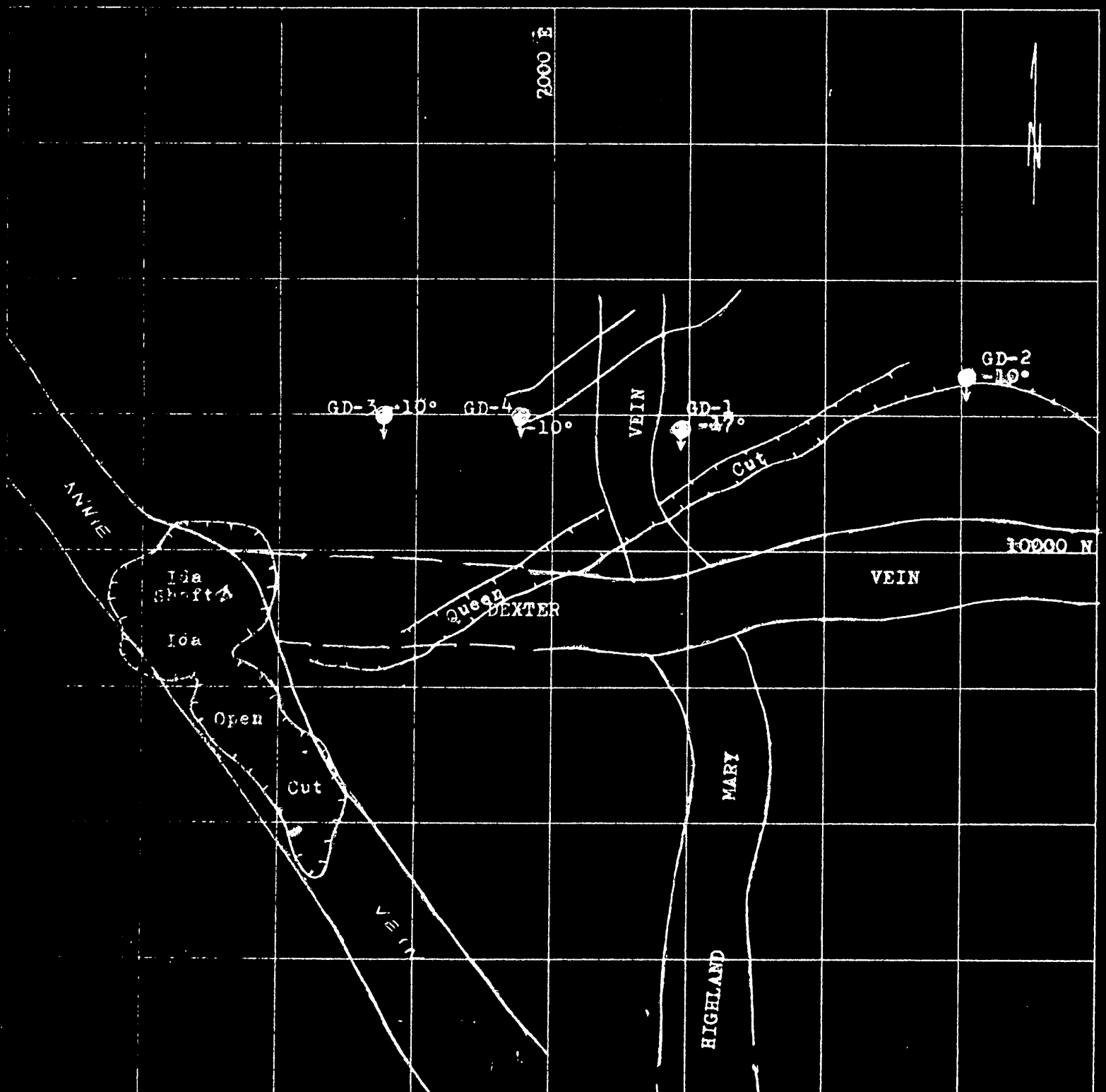
Scale: 1" = 100' Contour interval 40'

March, 1964

Geology from Steven-Ratte

CHARLES E. MELBYE
Geological Engineer

CHARLES E. MELBYE
Geological Engineer



W. S. Moore Co.
SURFACE SKETCH MAP

DEXTER VEIN

Showing Proposed Drilling

1"=100'

Plate 12

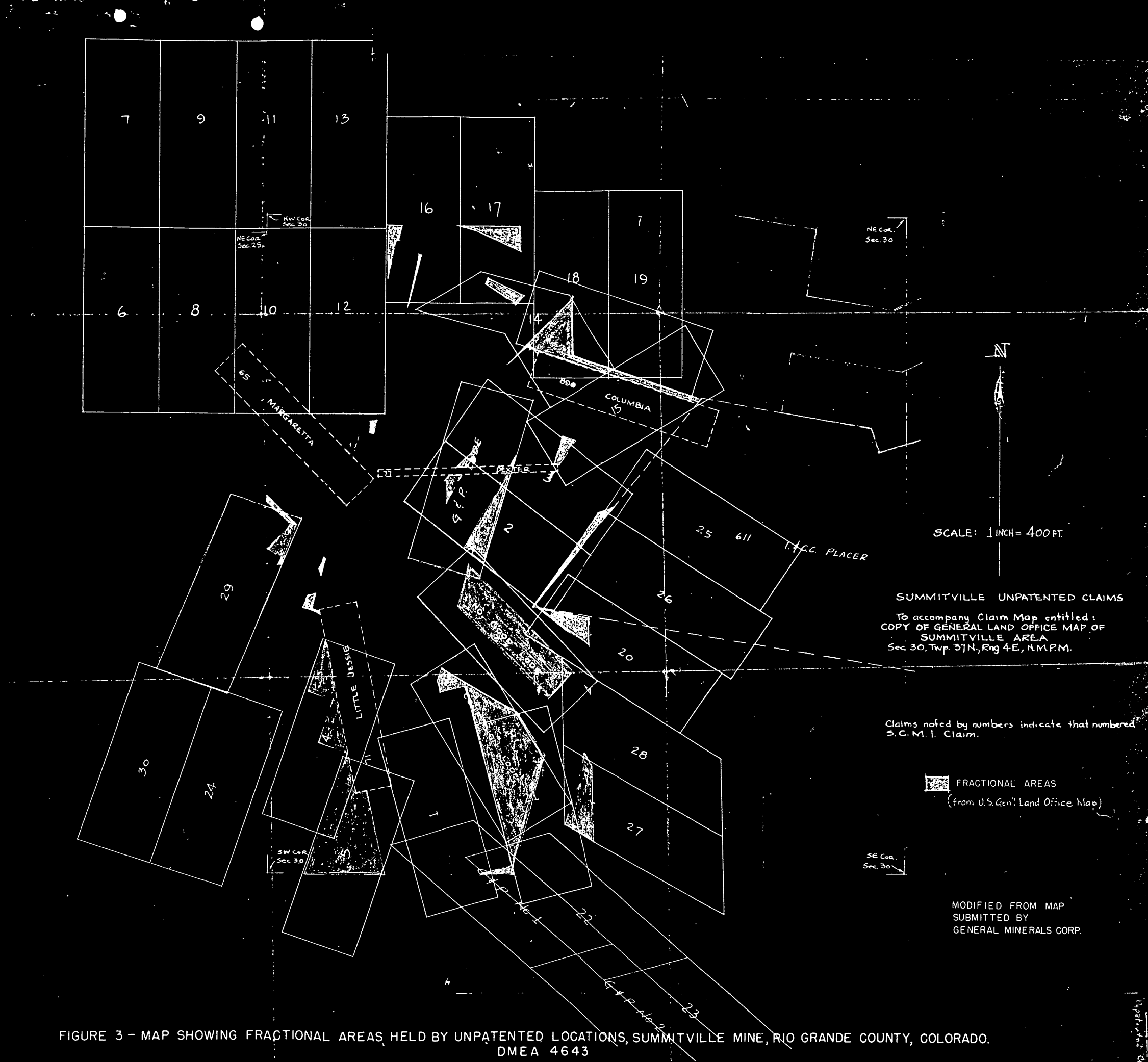


FIGURE 3 – MAP SHOWING FRACTIONAL AREAS HELD BY UNPATENTED LOCATIONS, SUMMITVILLE MINE, RIO GRANDE COUNTY, COLORADO.
DMEA 4643

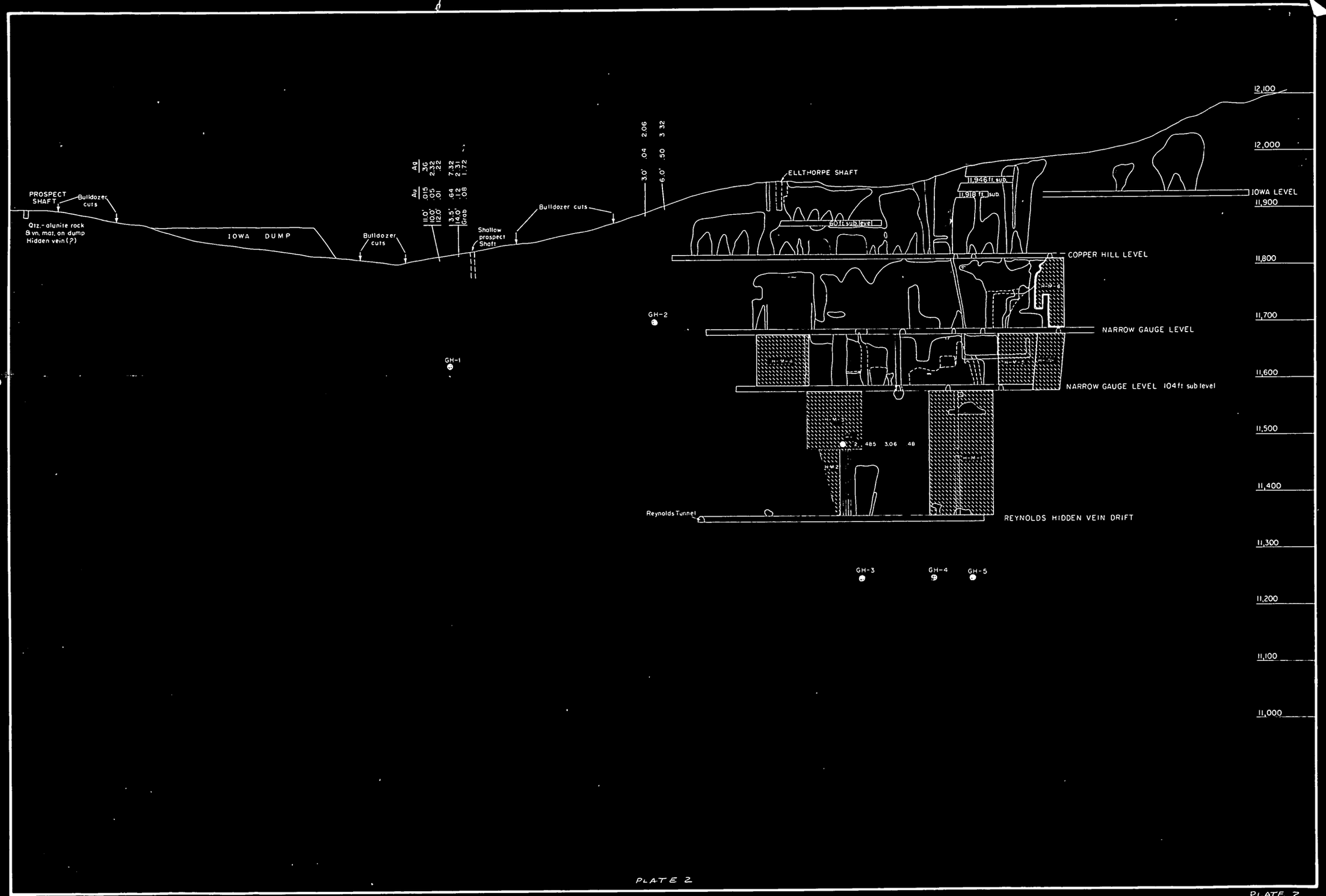


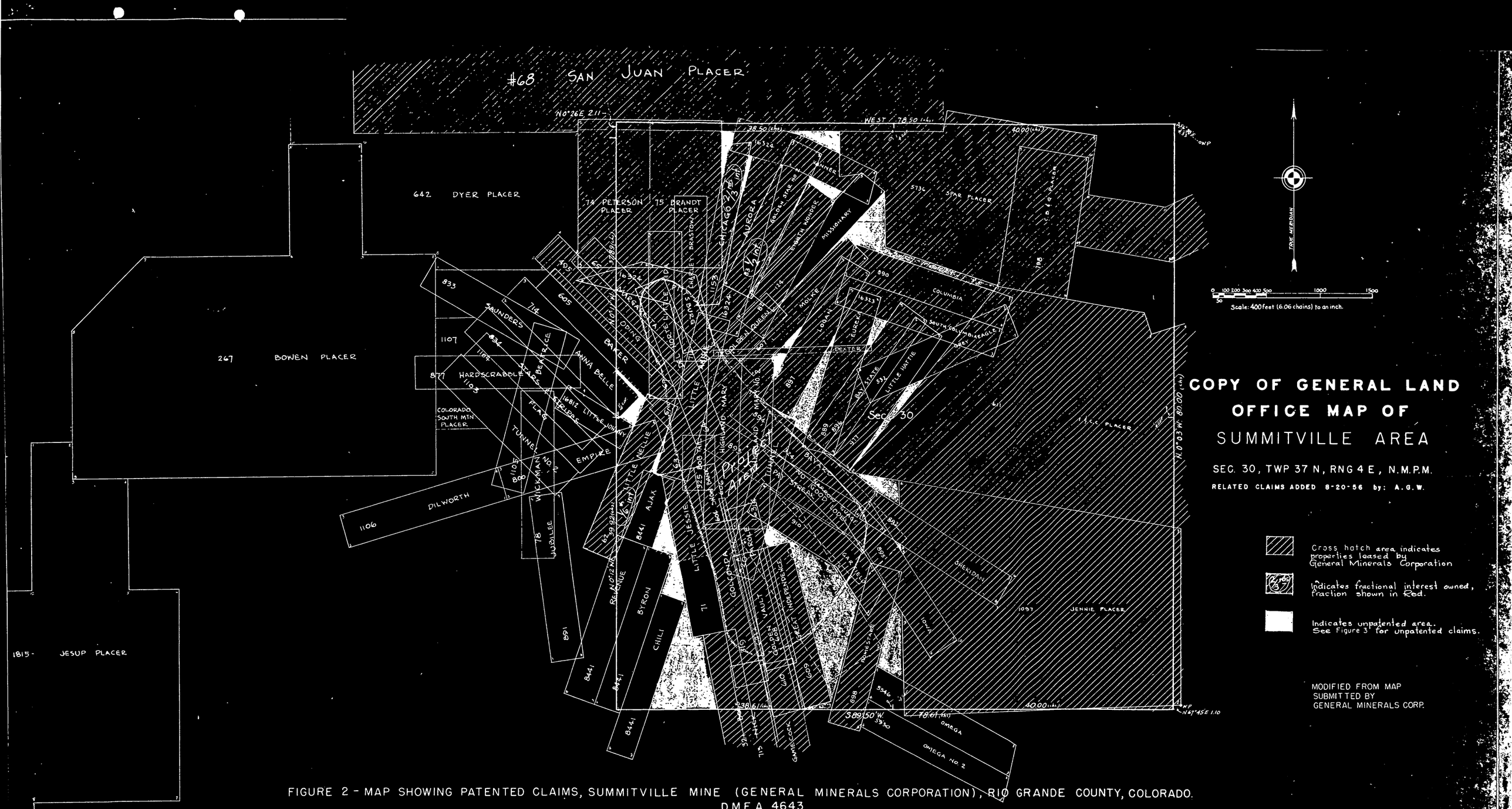
PLATE 2

CHARLES E. MELBYE
Geological Engineer

W.S. MOORE CO.
SUMMITVILLE MINES
HIDDEN VEIN
VERTICAL LONG SECTION
LOOKING S 30° W
Rio Grande County, Colorado
Scale: 1"=100' February 1964

Stoped areas
GH-3 Proposed drillhole (Intersection pt w/vein)
Completed drillhole

PLATE 2



COPY OF GENERAL LAND OFFICE MAP OF SUMMITVILLE AREA

SEC. 30, TWP 37 N, RNG 4 E, N.M.P.M.

RELATED CLAIMS ADDED 8-20-56 by: A.G.W.

Cross hatch area indicates properties leased by General Minerals Corporation

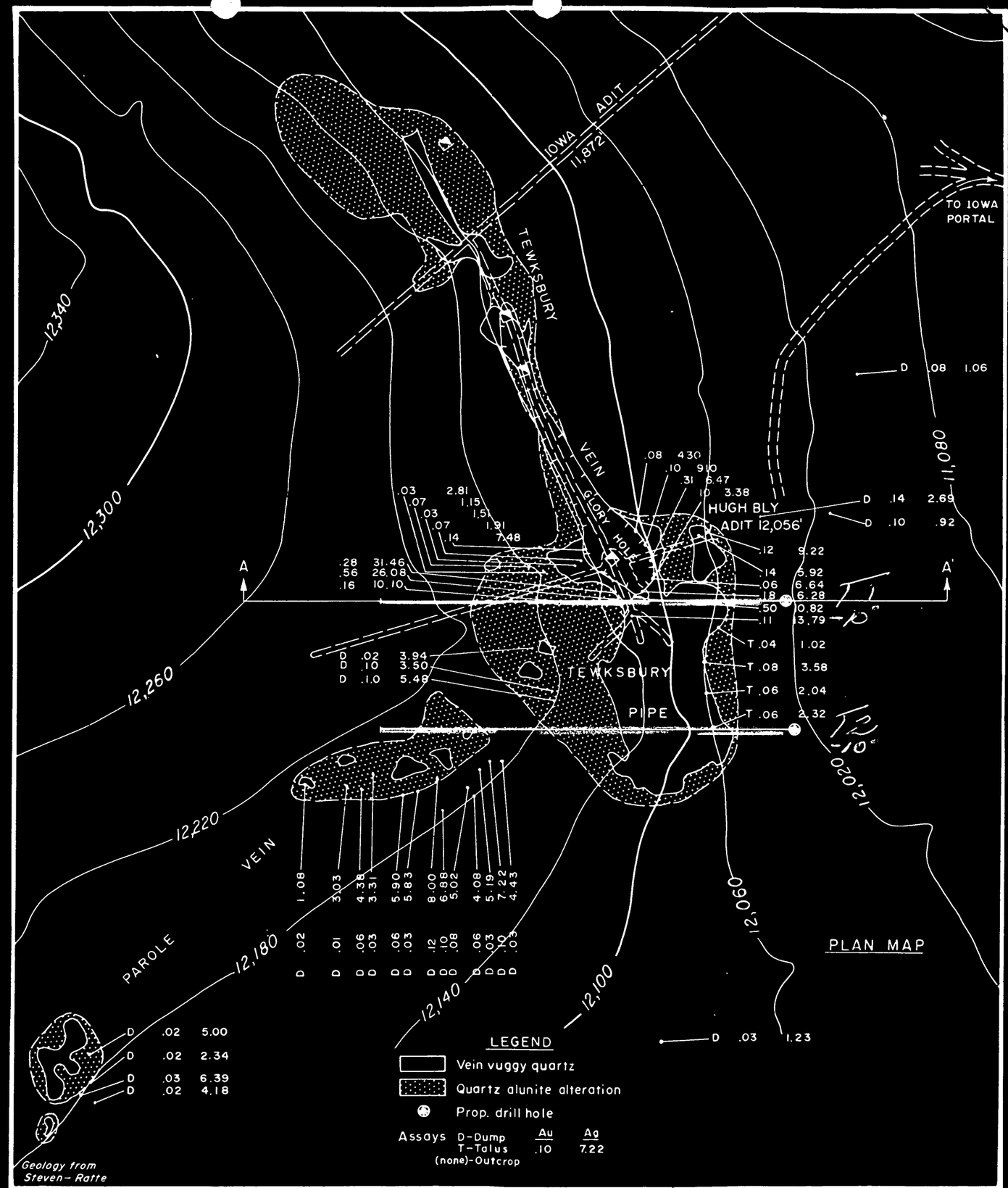
Indicates fractional interest owned, fraction shown in Red.

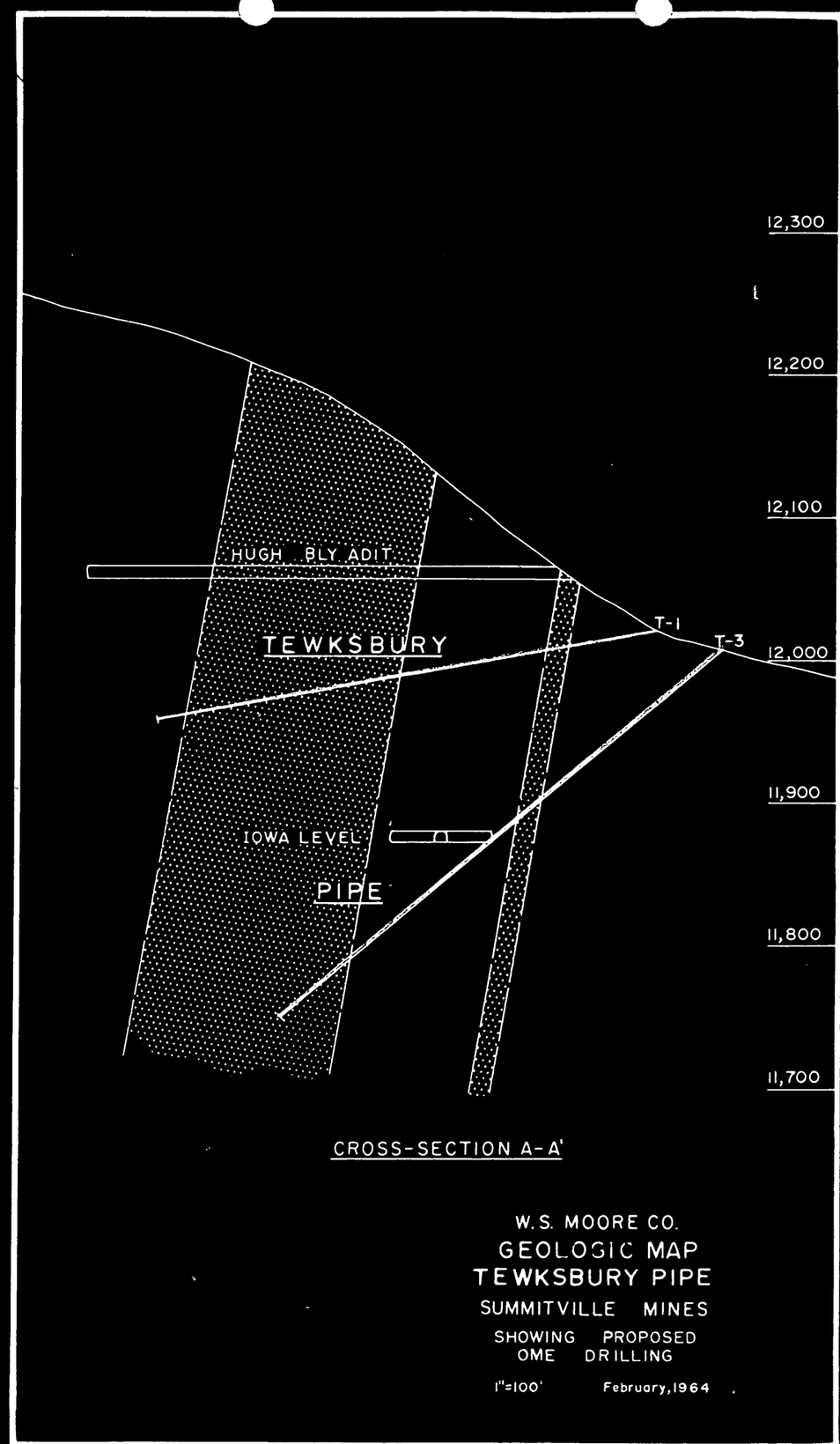
Indicates unpatented area. See Figure 3 for unpatented claims.

MODIFIED FROM MAP SUBMITTED BY GENERAL MINERALS CORP.

FIGURE 2 - MAP SHOWING PATENTED CLAIMS, SUMMITVILLE MINE (GENERAL MINERALS CORPORATION), RIO GRANDE COUNTY, COLORADO.

DMEA 4643





CHARLES E. MELBYE
Geological Engineer

PLATE 4

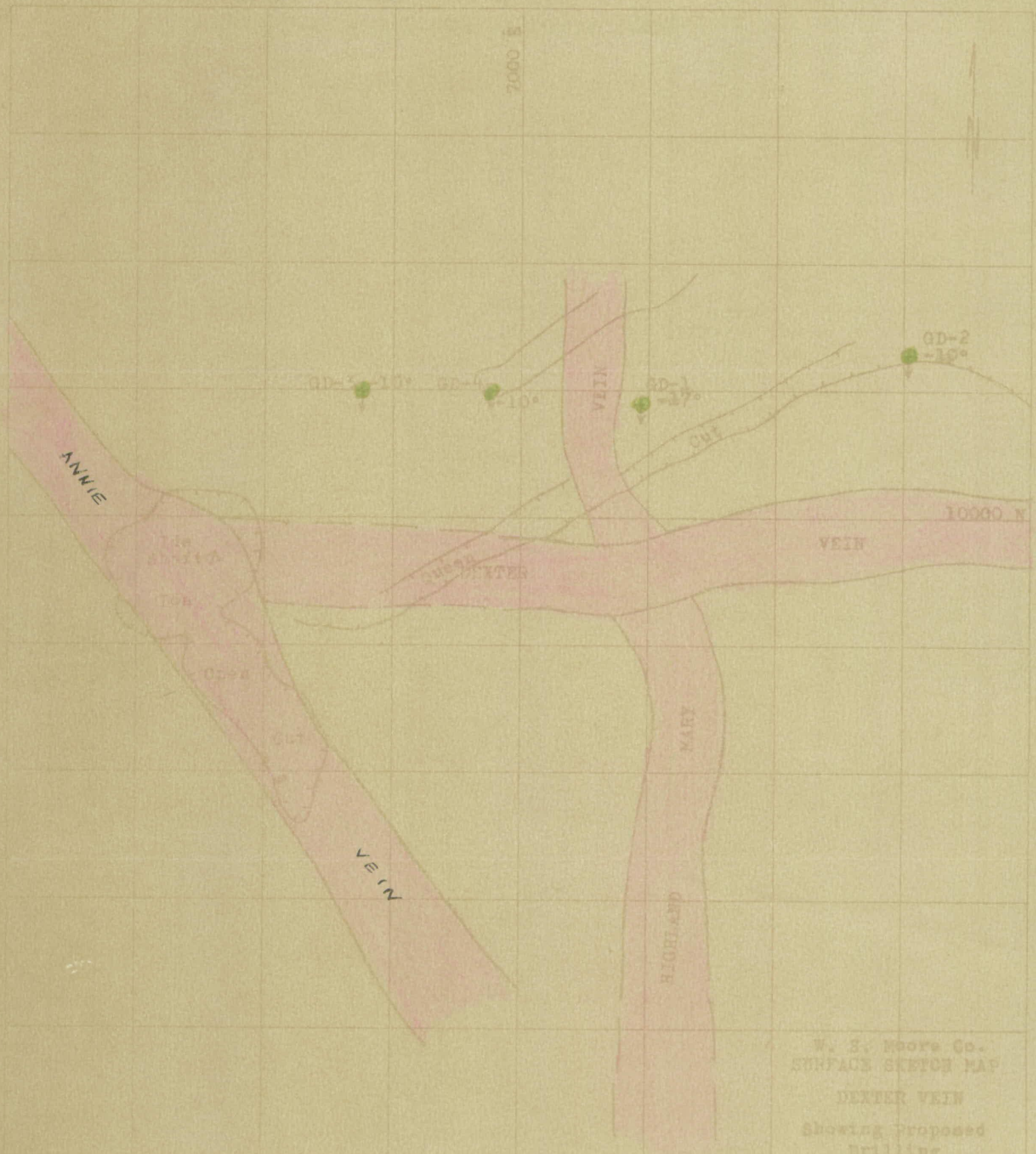
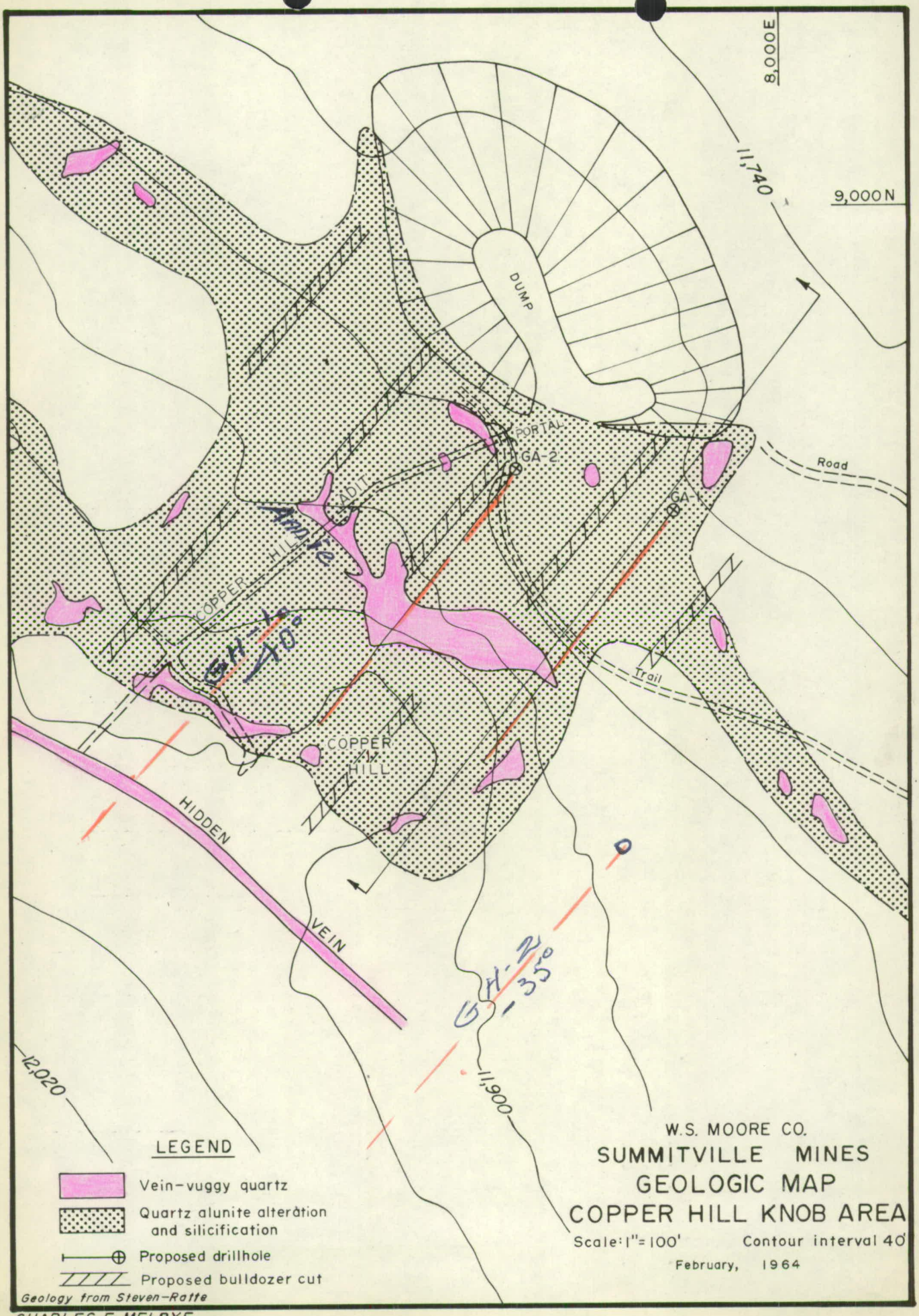
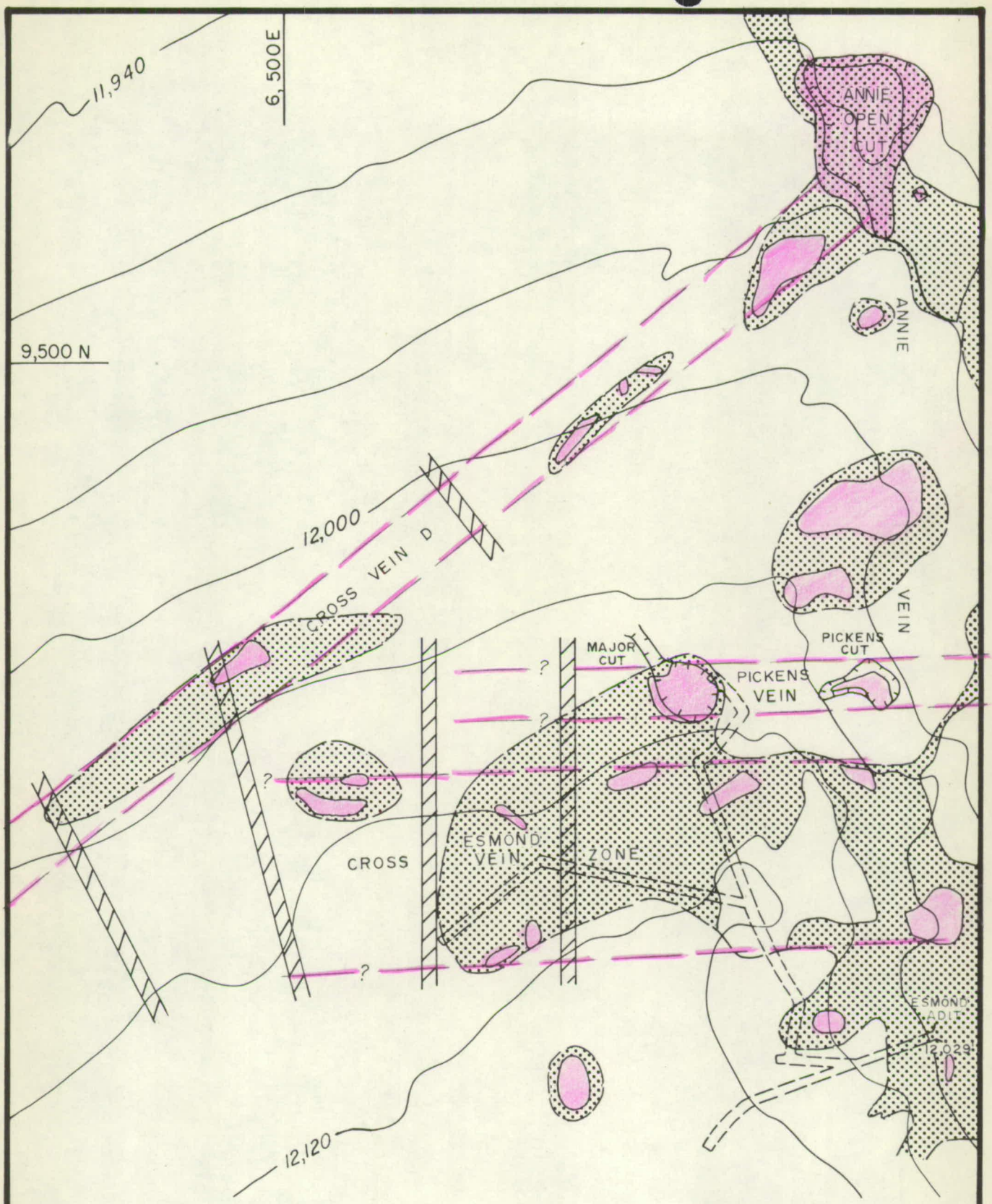

7000 S
GD-2
-10°
GD-1
-10°
GD-4
-10°
GD-3
-17°
VEIN
Cut
ANNIE
10000 N
VEIN
DEXTER
Cut
VEIN
MARY
HIGHLAND
W. S. Moore Co.
SURFACE SKETCH MAP
DEXTER VEIN
Showing Proposed
Drilling
1"=100'

Plate 12



CHARLES E. MELBYE
Geological Engineer

Plate 6



LEGEND

Vein-vuggy quartz

Quartz alunite alteration and disseminated Au–Ag mineralization

Proposed bulldozer cut

W.S. MOORE CO.

SUMMITVILLE MINES

GEOLOGIC MAP

ESMOND-PICKENS

CROSS-VEIN AREA

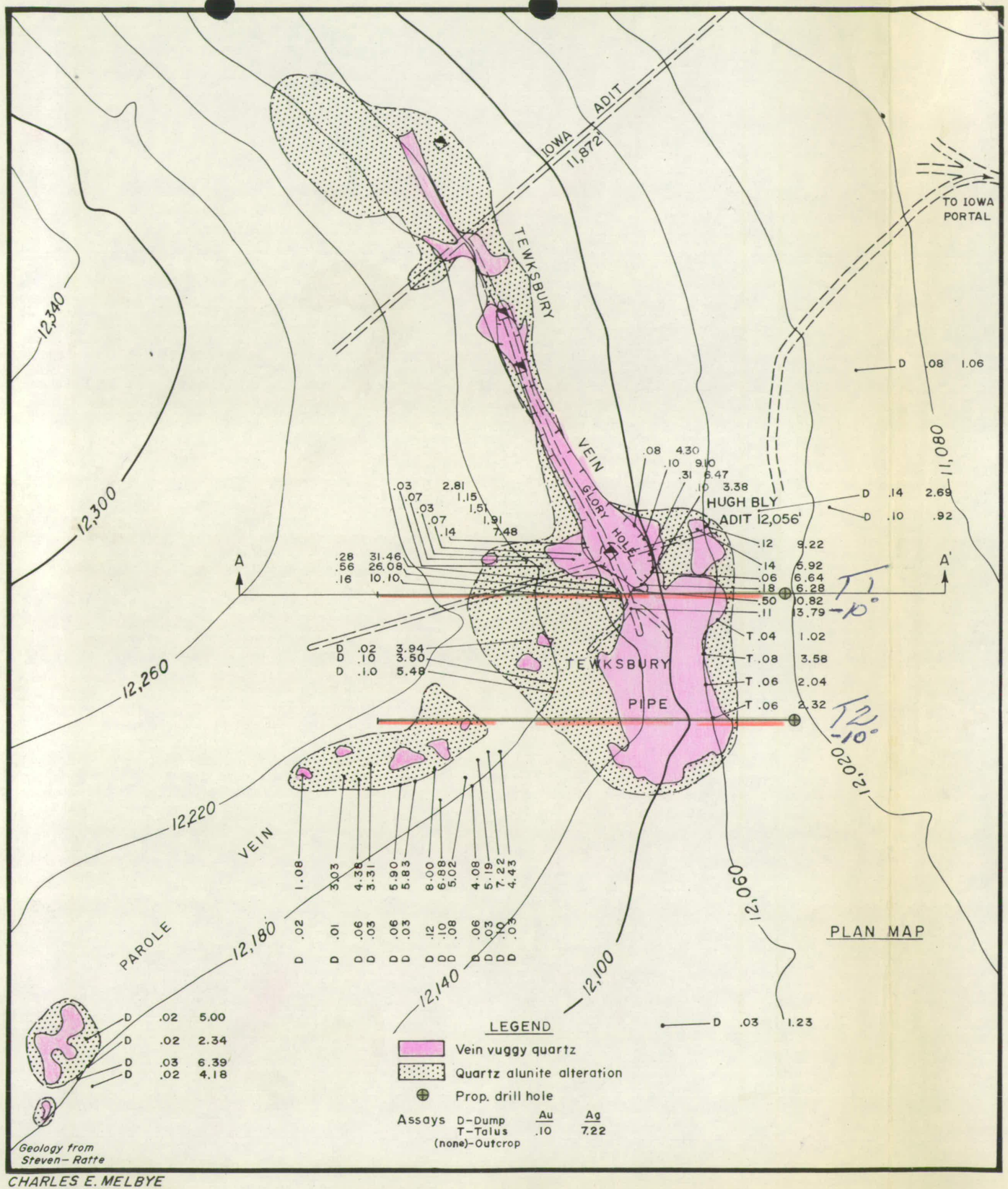
Scale: 1" = 100' Contour interval 40'

March, 1964

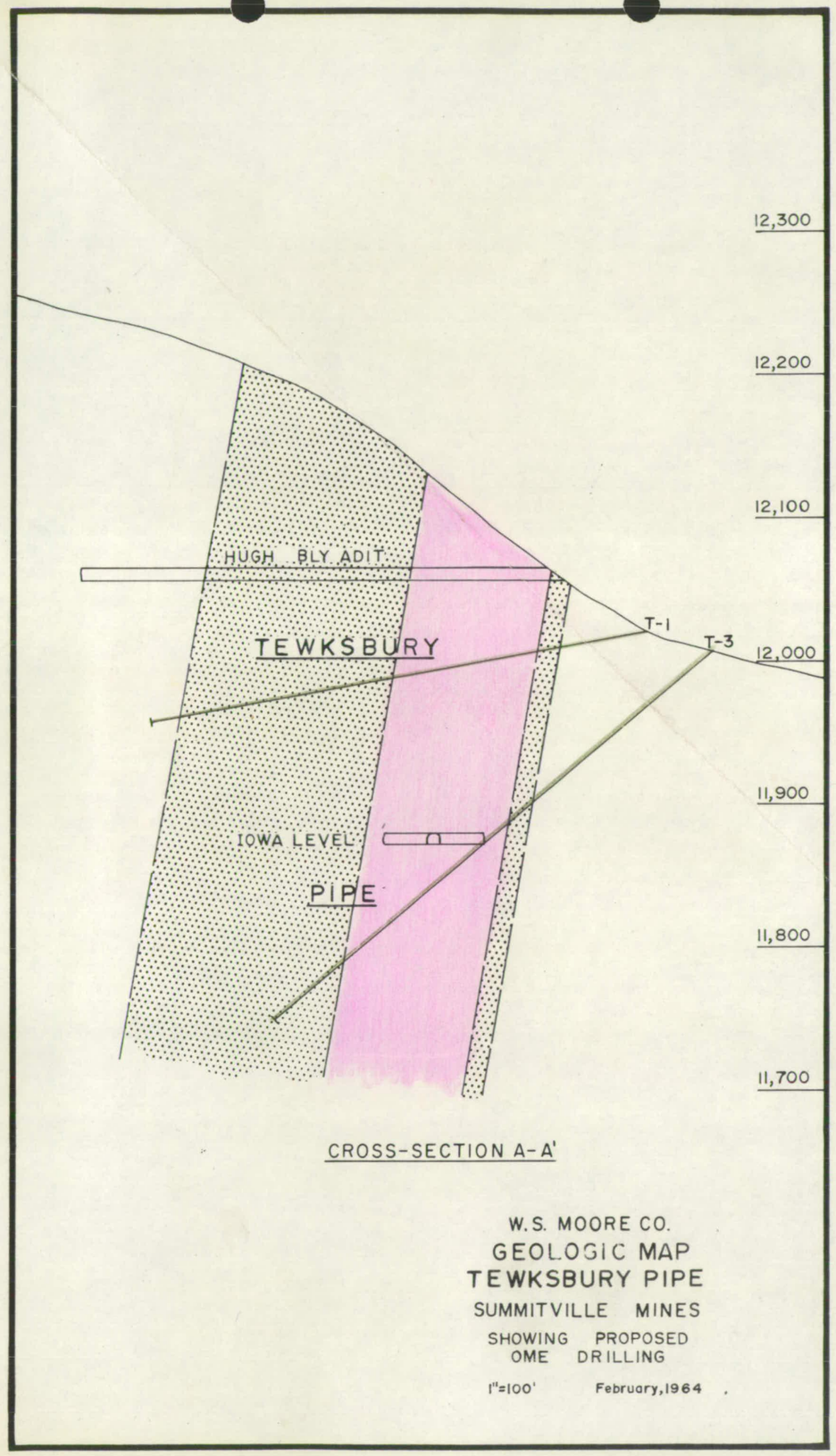
Geology from Steven-Ratte

CHARLES E. MELBYE
Geological Engineer

Plate 11



PLAN MAP



CROSS-SECTION A-A'

W.S. MOORE CO.
GEOLOGIC MAP
TEWKSBURY PIPE
SUMMITVILLE MINES
SHOWING PROPOSED
OME DRILLING

1"=100' February, 1964

CHARLES E. MELBYE
Geological Engineer

FIGURE 5. RECOMMENDED EXPLORATION, SUMMITVILLE MINE, GENERAL MINERALS CORPORATION, RIO GRANDE COUNTY, COLORADO. DMEA 4643.

CHARLES E. MELBYE
Geological Engineer

W.S. MOORE CO.

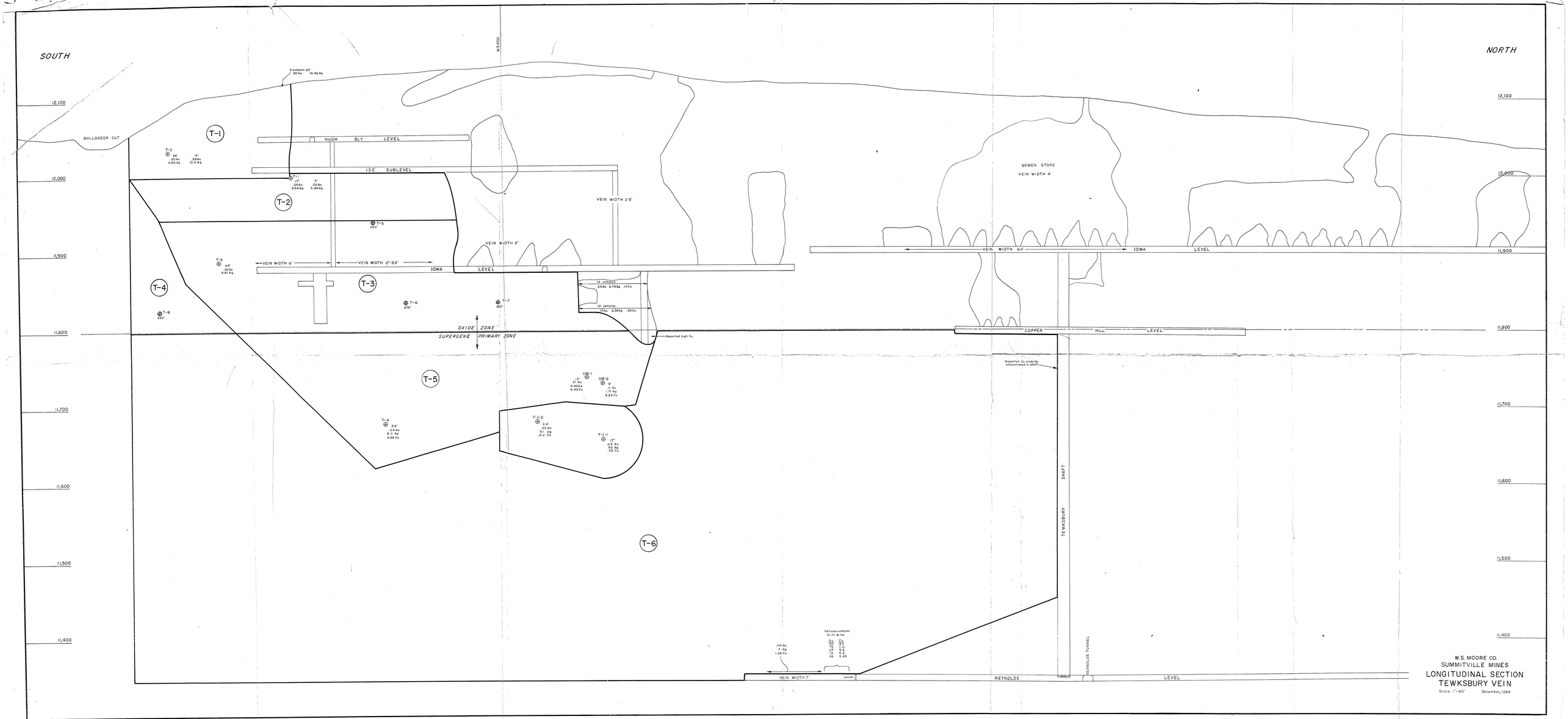
GEOLOGIC MAP
SOUTH TEWKSBURY AREA
SUMMITVILLE MINES

Rio Grande County, Colorado
Scale: 1"=40' September, 1964

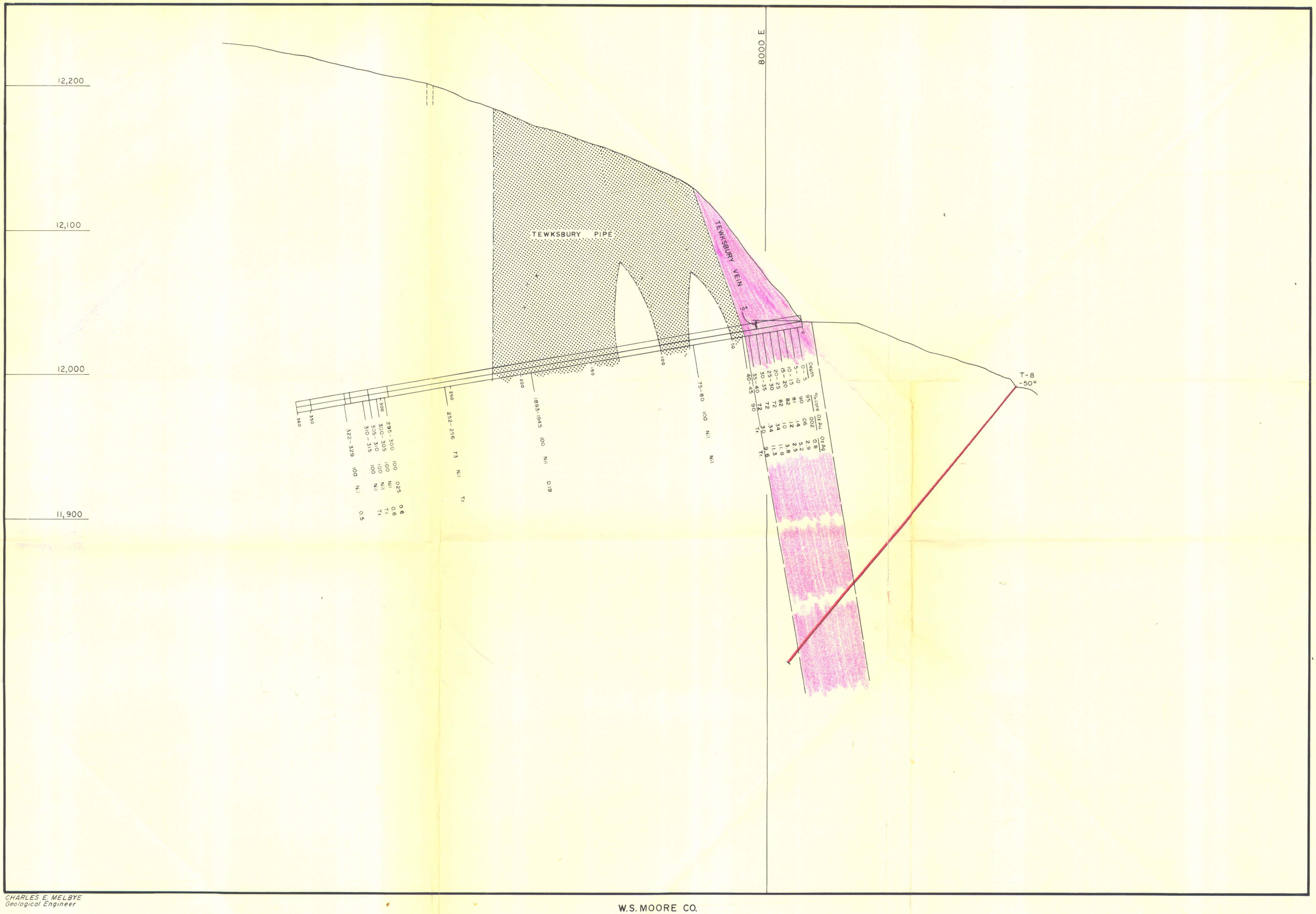
OFFICIAL COPY
O. N. R.
RECEIVED
SEP 30 1966
INITIALS CODE
12C

LEGEND

- Quartz latite porphyry
- Tal — Quartz latite dike
- Vein
- Quartz alunite alteration



CHARLES F. MELRAE

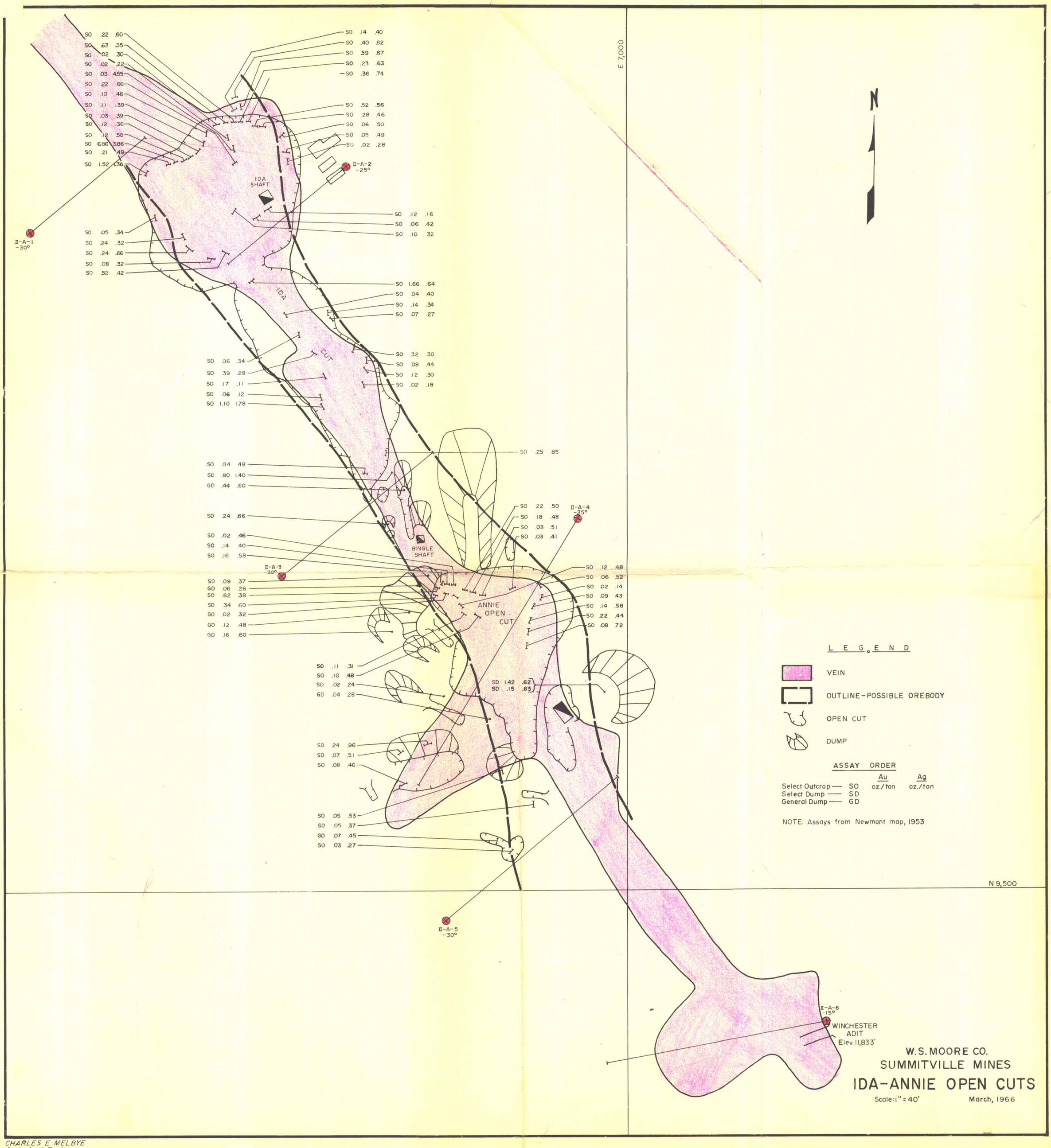


CHARLES E. MELBYE
Geological Engineer

W.S. MOORE CO.

GEOLOGIC ASSAY LOG
HOLE T-2
SUMMITVILLE MINES

SECTION LOOKING NORTH
Scale: 1"=40' August 1964



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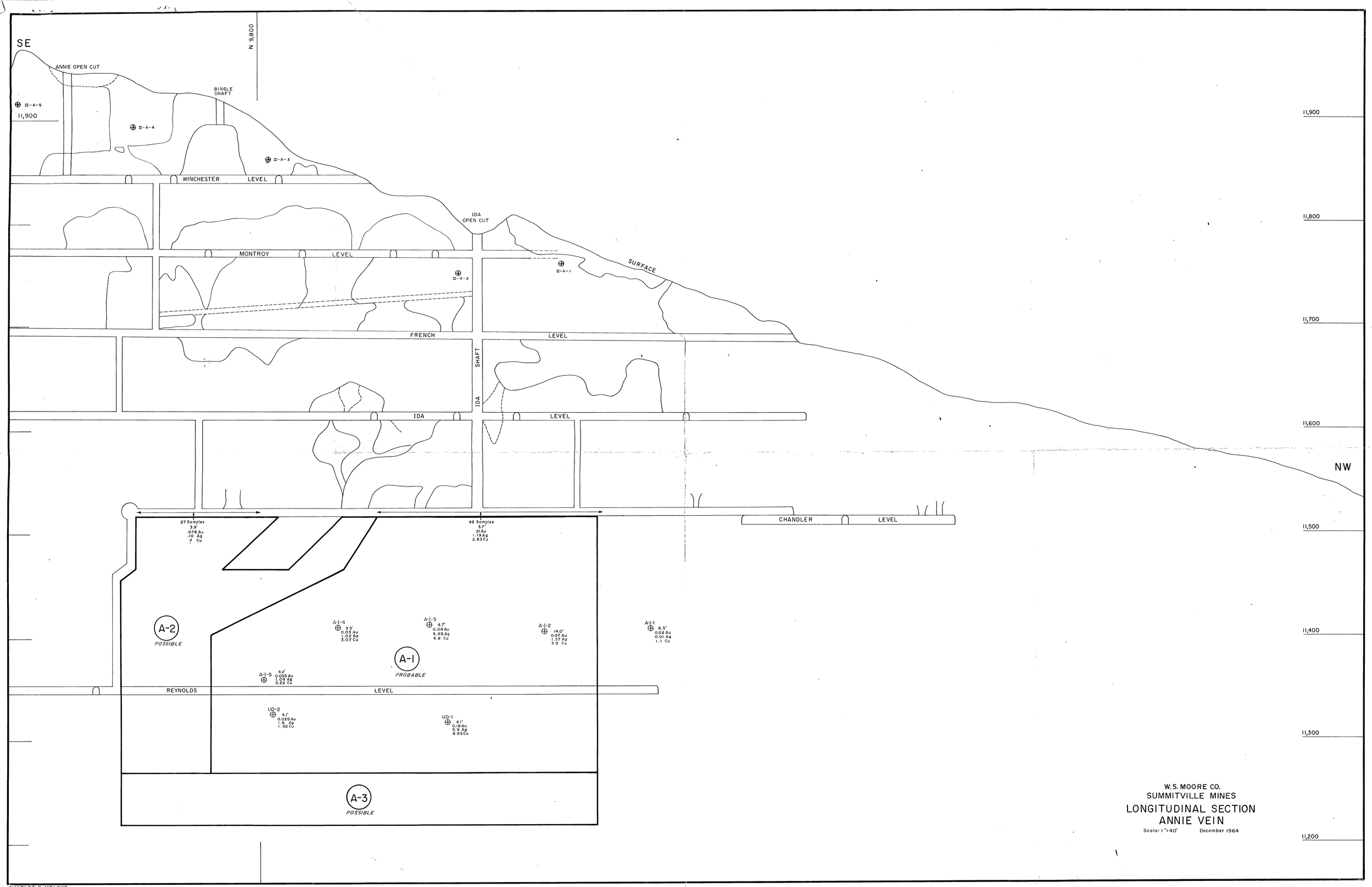

W.S. MOORE CO.
SUMMITVILLE MINES
LONGITUDINAL SECTION
ANNIE VEIN
Scale: 1"=40' December 1964

CHARLES E. MELBYE
Geological Engineer

CHARLES E. MELBYE
Geological Engineer

W.S. MOORE CO.
GEOLOGIC MAP
SOUTH TEWKSBURY AREA
SUMMITVILLE MINES
Rio Grande County, Colorado
Scale: 1"=40' September, 1964

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RECEIVED
SEP 30 1966
INITIALS CODE
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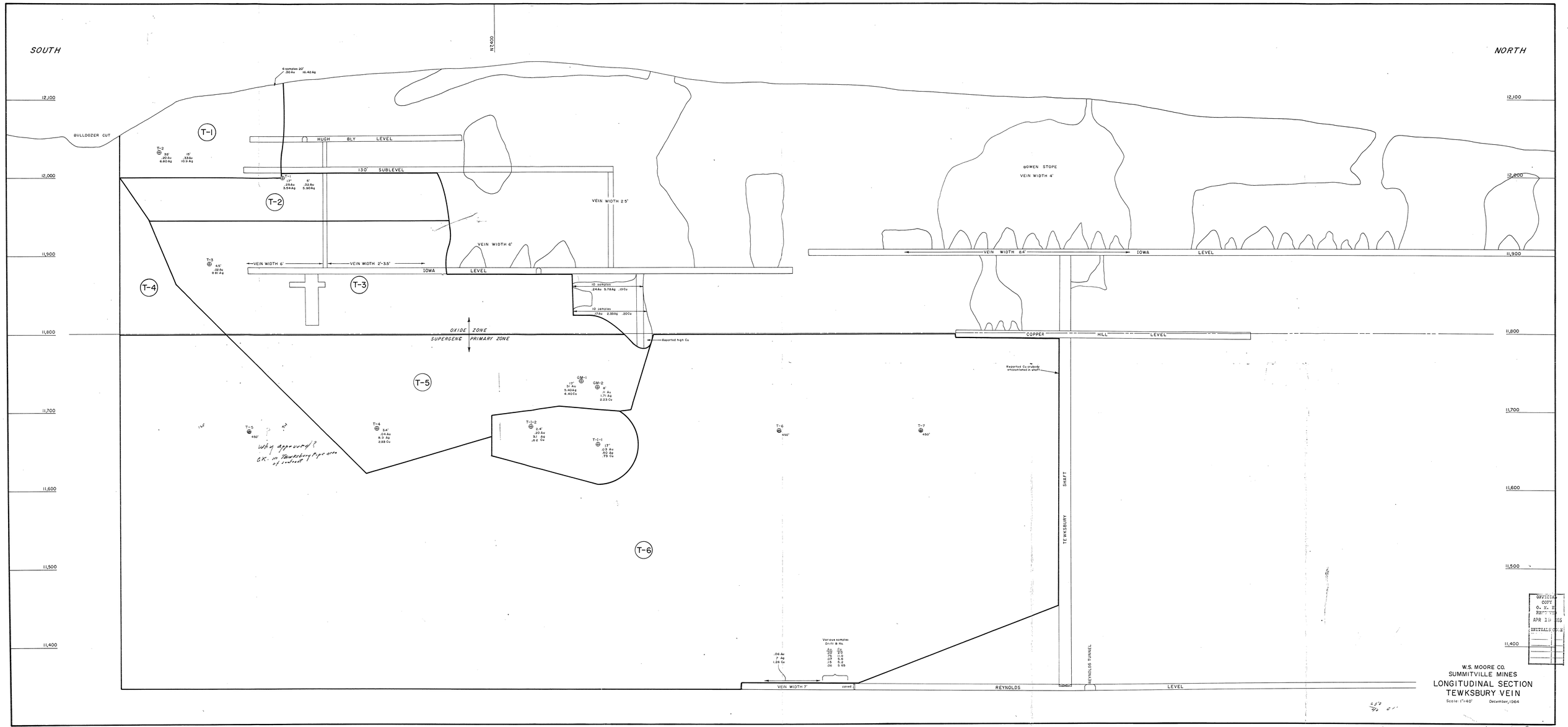
LEGEND

Quartz latite porphyry
Tql Quartz latite dike
Vein
Quartz alunite alteration

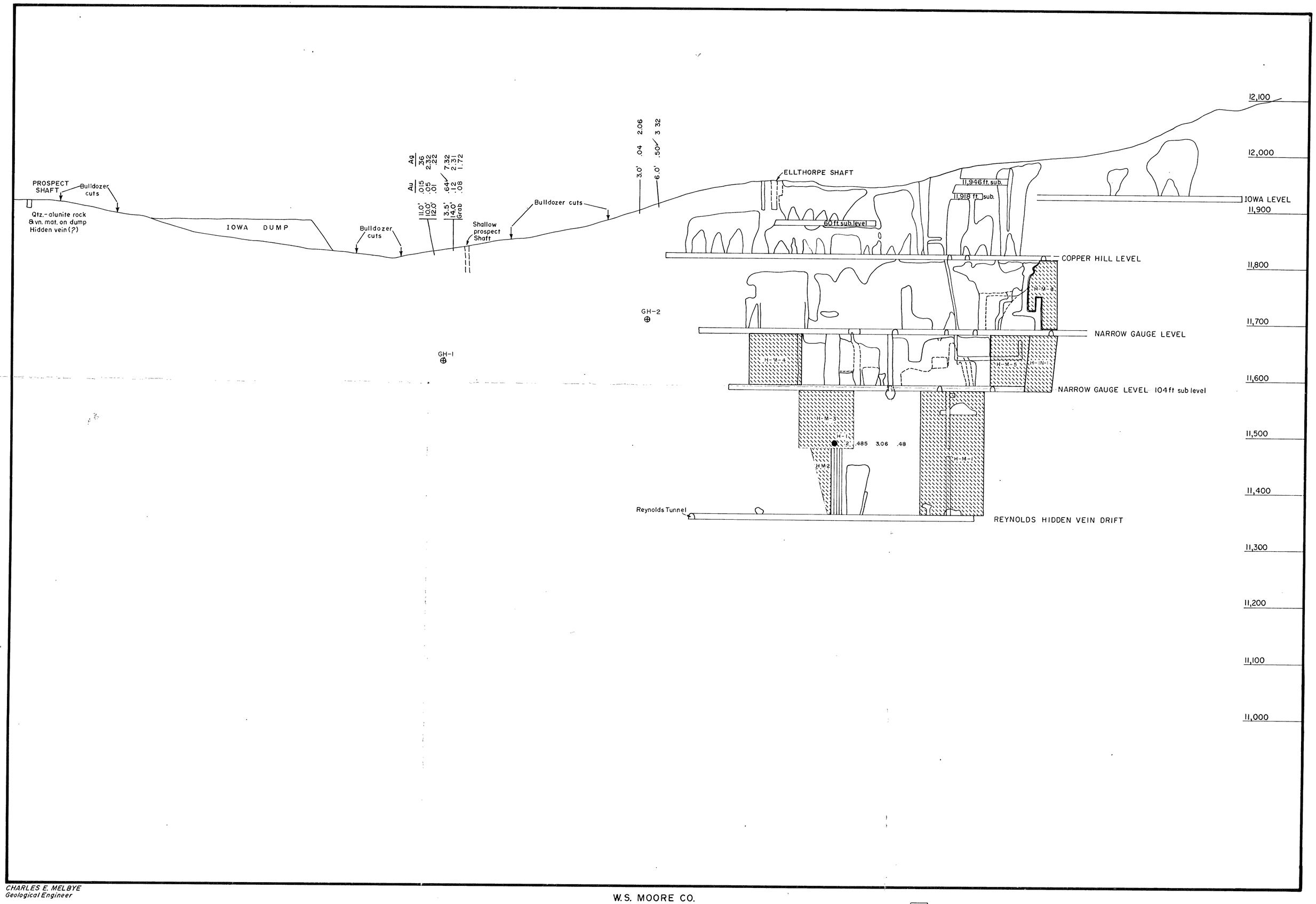


W.S. MOORE CO.
SUMMITVILLE MINES
LONGITUDINAL SECTION
TEWKSBURY VEIN
Scale: 1"=40' December, 1964

OFFICIAL COPY O. K. E. RECEIVED APR 18 1965 INITIALS COLE

CHARLES E. MELBYE
Geological Engineer

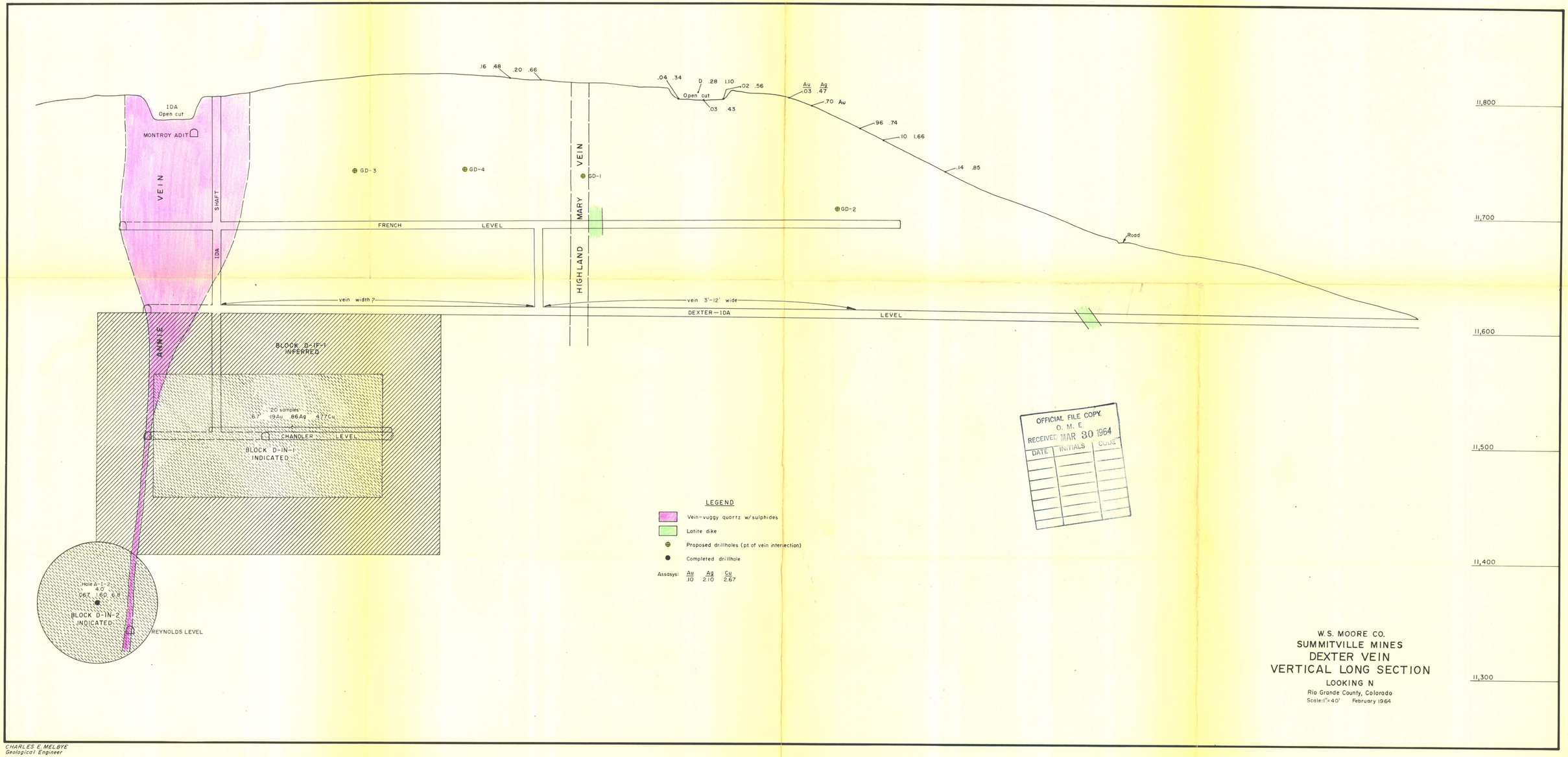
Charles E. Melbye letter 4/5/65 to Mr. Cannon
Mr. Cannon's endorsement 4/8/65



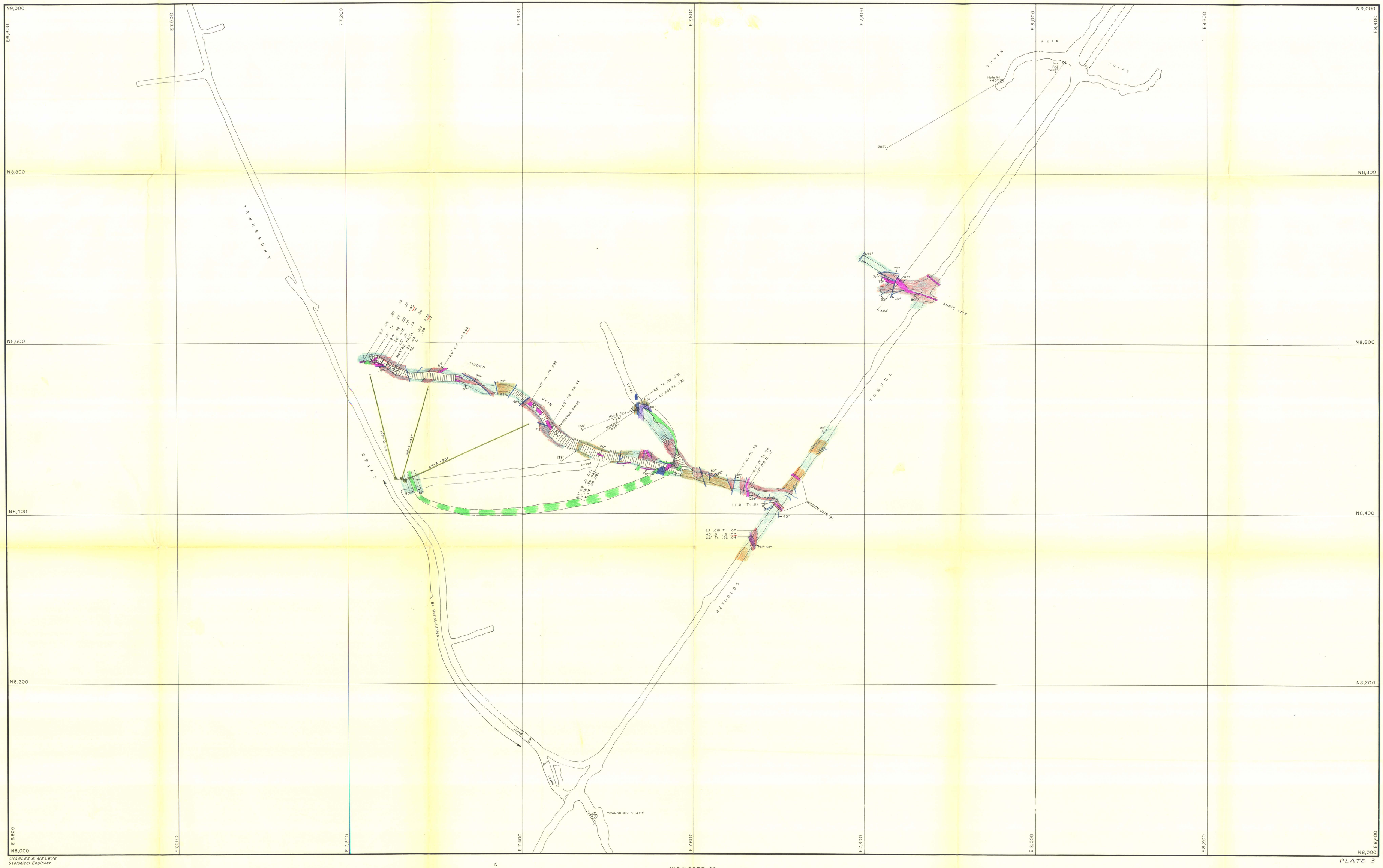
CHARLES E. MELBYE
Geological Engineer

W.S. MOORE CO.
SUMMITVILLE MINES
HIDDEN VEIN
VERTICAL LONG SECTION
LOOKING S 30° W
Rio Grande County, Colorado
Scale: 1" = 100' February 1964

Stoped areas
GH-3 ⊕ Proposed drillhole (Intersection pt w/vein)
● Completed drillhole



CHARLES E. MELBYE
Geological Engineer



CHARLES E. MELBYE
Geological Engineer

PLATE 3

W.S. MOORE CO.

GEOLOGIC MAP
REYNOLDS LEVEL
SUMMITVILLE MINES

Rio Grande County, Colorado
Scale: 1" = 40' December 1963

Rock Types
- Andesite – dikes and sills
- Quartz latite – dikes and sills
- Quartz latite porphyry – Coarse-grained phenocrysts; Fine-grained phenocrysts

Alteration
- Silicification – usually accompanied by finely disseminated pyrite
- Argillization – intense – (Nearly all quartz latite porphyry in mine area is weak to moderately argillized.)

Mineralization
- Vein – vuggy quartz with copper sulphides and pyrite (Stippling indicates disseminated sulphides)

Structure
- Fault – (dashed where inferred)

Culture
- Survey station
- Raise or winze
- Stope chute

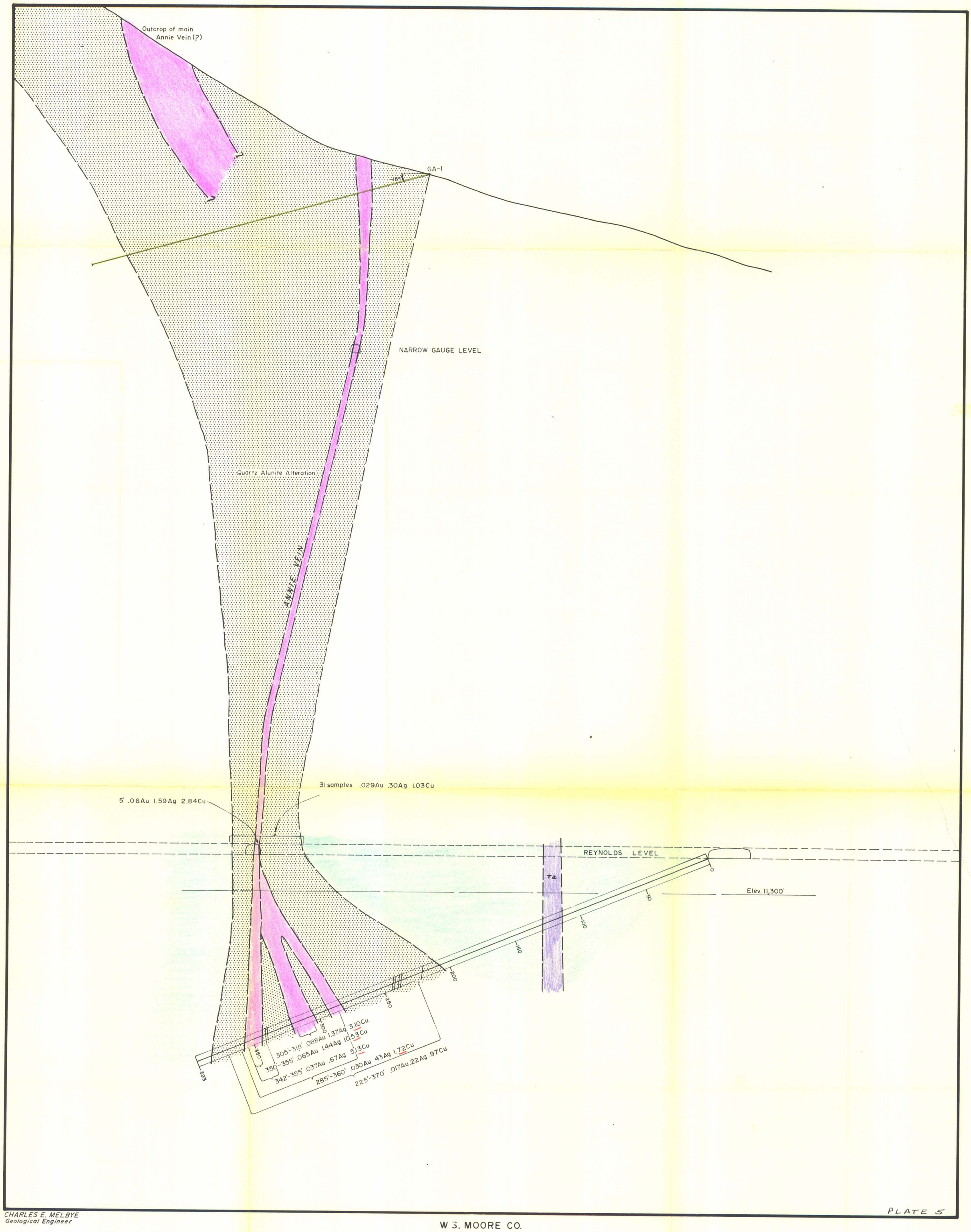


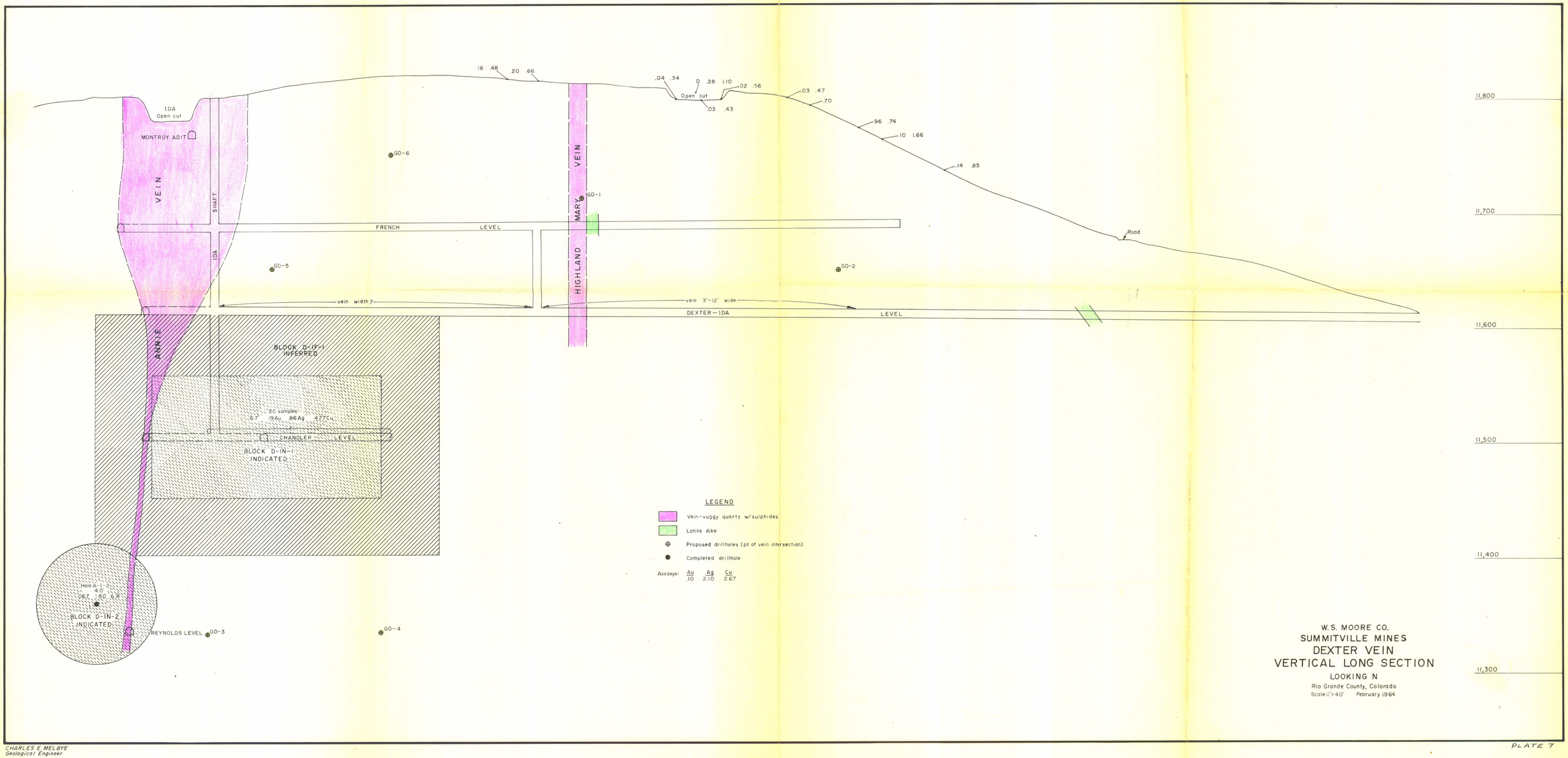
PLATE 5

CHARLES E. MELBYE
Geological Engineer

W. S. MOORE CO.

SUMMITVILLE MINES
ANNIE VEIN CROSS-SECTION
ALONG HOLE A-2

Rio Grande County, Colorado
Scale: 1" = 40' January 1964



CHARLES E. MELBYE
Geological Engineer

PLATE 7

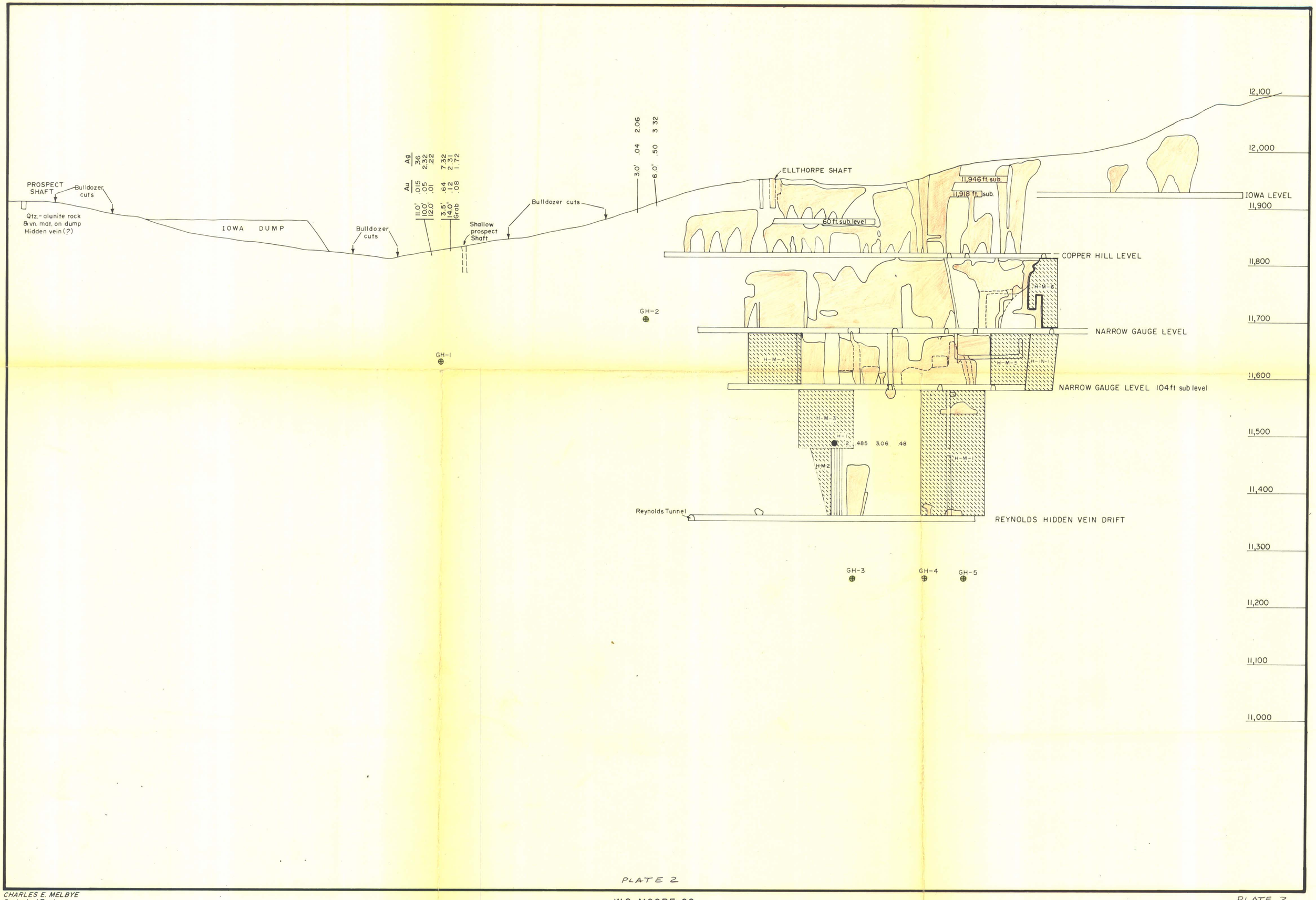


PLATE 2

CHARLES E. MELBYE
Geological Engineer

W.S. MOORE CO.
SUMMITVILLE MINES
HIDDEN VEIN
VERTICAL LONG SECTION
LOOKING S 30° W
Rio Grande County, Colorado
Scale: 1"=100' February 1964

Stoped areas
GH-3 Proposed drillhole (Intersection pt. w/vein)
Completed drillhole

PLATE 2