Table 1. Plants of possible geobotanical significance in mineralized areas of Walker Lake quadrangle

Plant Species	Metal	Cu		Mo-Cu	Mo		W	Pb-Zn	Cr-Ni		Au-Ag											U			
	Elevation (ft)	4400	8600	8100	4470	6200	7700	9200	5000	6000	5000	5400	5700	7400	7600	8200	8300	8400	9000	10,400	11,000	4400	5000	5400	5400
	Station Number	2	61	53	36	28	30	59	60	13	11	34	5	45	20	46	47	21	50	54	56	8	40	9	10
Gramineae																									
Elymus triticoides			X	X								X	X	X	X	X	X	X							
Oryzopsis hymenoides		X	X	X		X	X			X							X	X				X		X	X
Polymoniaceae																									
Eriogonum Baileyi			X																						
" caespitosum																X		X		X					
" deflexum																							X		
" inflatum			X							X		X	X									X	X	X	X
" Kennedyi																									
" Lobbii								X												X					
" marifolium																X				X					
" microthecum			X	X														X							
" nidularium												X													
" ovalifolium var. nivale																							X		
" sphaerocephalum		X													X			X		X	X				
" trichopes																									
" umbellatum			X	X										X	X	X	X	X							
" ursinum																				X					
" vimineum				X				X																	
" Wrightii ssp. subscaposum				X																					
Caryophyllaceae																									
Arenaria Nuttallii var. gracilis														X						X	X				
Cruciferae																									
Arabis platysperma																				X	X				
" pulchra				X	X	X															X				
Descurainea pinnata						X	X			X															
Draba subsessile																			X	X					
Lepidium lasciocarpum														X		X									
" montanum						X				X	X						X								
" perfoliatum		X				X																		X	
Stanleya elata									X	X	X	X	X			X									
" pinnata					X																				
Leguminosae																									
Astragalus malacus							X								X										
Lupinus Andersoni														X						X					
" caudatus			X			X	X									X		X		X					
" hypolasius																					X				
" Lyallii																					X				
" pusillus										X															
Hydrophyllaceae																									
Phacelia bicolor														X				X							
" crenulata																						X		X	
" frigida		X									X			X							X				
" gymnoclada																								X	
" vallis-mortae																	X								
Labiatae																									
Monardella odoratissima			X	X										X		X	X		X						
Mentha piperita														X											

Table 2. Some elements in sediments and the ash of plants from base-metal deposits, shown in parts per million
(Analysts: T. F. Harms, E. L. Mosier, and Clara Papp)
[Leader (---) indicates not requested; N, not detected; L, less than detection limit; and G, greater than detection limit; I.S., insufficient sample]

Sta. No.	Field No.	Sample description	Part of plant	Laboratory no.	Percent ash yield	Copper Plant	Copper Soil	Lead Plant	Lead Soil	Zinc Plant	Zinc Soil	Molybdenum Plant	Molybdenum Soil	Chromium Plant	Chromium Soil	Nickel Plant	Nickel Soil	Tungsten Plant	Tungsten Soil	Total Sulfur Plant	Arsenic Plant	Other elements in anomalous quantities Plant	Other elements in anomalous quantities Soil
		Santiago mine, Copper Mountain, California (Cu)																					
61	P1	Monardella odoratissima	above ground	D421057	8.9	300		7		700		L		5		7		---		20,000	---		
		Copper in carbonates, Nevada																					
39	P1	Chrysothamnus nauseosus	tips	D419979	6.3	200		L		500		50		5		7		---		---	---	0.5 Ag	
	S1	Soil of Chrysothamnus nauseosus		EFN522			700		30		N		L		50		30		---				
		Star City mine, Sweetwater Mountains (Mo)																					
53	P1	Pinus albicaulis	needles	D420012	3.3	300		10		2,000		580		7		30		---		---	---	0.5 Ag	
		------do------	twigs	D420013	2.4	1,000		15		1,000		380		10		50		---		---	---	0.3 Ag	
		------do------	roots	D420014	16	500		20		N		5,000		300		200		---		---	---		0.7 Ag
		Soil of Pinus albicaulis		EFN510			500		30		N		1,000		L		20		---				
		Pine-Nut district, California (Mo)																					
28	P1a	Peraphyllum gracile	leaves	D419956	8.5	50		5		200		60		15		10		---		---	---		
	P1b	------do------	twigs	D419957	4.0	70		50		1,000		80		N		5		---		---	---		
	P1c	------do------	roots	D419958	5.2	70		5		N		260		5		5		---		---	---	0.5 Ag	
	P2a	Juniperus monosperma	tips	D419959	4.0	50		10		N		250		5		5		---		---	---		
	P2b	------do------	twigs	D419960	9.5	20		20		N		24		7		L		---		---	---		
	P2c	------do------	roots	D419961	8.0	100		7		N		65		10		5		---		---	---		
	S1	Soil of Juniperus monosperma		EFN485			30		50		L		55		N		5		---				
29	P1	mistletoe on	entire	D419962	6.1	70		N		500		55		N		N		---		---	---		
	P2	Pinus monophylla	tips	D419963	3.2	70		15		1,000		28		N		L		---		---	---		
	S1	Soil of Pinus monophylla		EFN486			150		30		L		21		30		15		---				
		Bertha Hall property, California (Pb, Zn)																					
59	P1a	Eriogonum Lobbii	heads	D421053	8.8	200		7,000		7,000		L		10		10		---		17,000			
	P1b	------do------	leaves	D421054	8.2	200		7,000		20,000		N		N		10		---		16,000			
	P1c	------do------	stems	D421055	5.7	200		5,000		7,000		20		N		10		---		I.S.			
	P1d	------do------	roots	D421056	4.4	300		10,000		620,000		N		10		20		---		27,000			
		Divide mine, California (W)																					
30	P1	Lupinus caudatus	above ground	D419967	8.4	50		15		N		140		15		15		30		---	---	0.3 Ag	
	P2	Artemisia tridentata	tips	D419968	4.2	100		20		200		36		N		15		15		---	---		
	S1	Soil		EFN487			150		300		2,000		5		150		50		50				3 Ag, 20 Bi
		Flying Cloud mine, Cottonwood Canyon, California (W)																					
18	P1	Chrysothamnus nauseosus	leaves and twigs	D419941	6.4	150		10		1,000		30		150		20		50		---	4.7		
	S1	Soil of Chrysothamnus nauseosus		EFN474			100		200		N		70		10		10		70	---	---	3 Ag	
		Belle Shaft, Candelaria district, Nevada (serpentine)																					
60	P1	Hecostocleis shockleyi	tips	D421048	5.3	200		200		2,000		30		200		50		---		---	56	.02 Au	
		Blue Noble mine, Candelaria district, Nevada (Cr)																					
13	P1	Atriplex confertifolia	tips	D419937	17	20		N		N		10		7		20		---		---	1.7		
	S1	Stream sediment		EFN469			200		300		300		N		1,500		1,000		---	---			.10 Au
		0.8 mi. S of Luning, Nevada (Mo)																					
36a	P1	Stanleya pinnata	tips	D419974	6.6	30		5		N		300		70		N		---		---	---	15 Se, 0.4 U	
	S1	Soil of Stanleya pinnata		EFN492			70		50		N		7		50		15		---		.78 Se		2 U
36b	P1	Stanleya pinnata	tips	D419975	3.9	30		5		N		100		50		N		---		---	---	1.5 Se, 0.4 U	
	S1	Soil of Stanleya pinnata		EFN493			50		30		N		5		50		15		---				2 U

Table 3. Some elements in soils, rocks and plants (ash basis) from gold and silver deposits, shown in parts per million
(Analysts: T. F. Harms, Clara Papp, E. P. Welsch, E. F. Cooley, Don Risoli, and D. J. Grimes)
[Leader (---) indicates not requested; N, not detected; L, less than detection limit; and G, greater than detection limit]

Sta. No.	Field No.	Sample description	Part of plant	Laboratory No.	Percent ash yield	Gold Plant	Gold Soil	Silver Plant	Silver Soil or rock	Arsenic Plant	Arsenic Soil	Lead Plant	Lead Soil or rock	Other elements in anomalous quantities Plant	Other elements in anomalous quantities Soil
		Santa Fe mine, Nevada (Ag, Pb)													
5	P-1	Stanleya elata	above ground	D419928	21	---		.05		---		5		1.19Se;<.4U	
	S-1	Hematitic soil		EFN463			---		0.3		---		30		60Se;2U
34	P-1	Stanleya elata at adit	above ground	D419973	8.4	0.01		N		---		10			
	S-1	Soil		EFN491			---		30		---		700		7000Zn
	R-1	Altered wall rock		EFN519					500		---		20,000		5000Zn;300Cd;1000Cu;200V
		Silverado-Kentuck mine, California (Ag, Au, Pb, Cu)													
50a	P-3	Pinus albicaulis	needles	D420001	2.3	---		N		---		15			1500Zn
	P-4	------do------	twigs	D420002	2.0	---		N		---		30			1000Zn
	P-6	------do------	roots	D420003	2.2	---		3		---		20			1000Zn
	S-1	Soil of Pinus albicaulis		EFN512			---		2		---		50		
	P-5	Holodiscus Boursieri	leaves and twigs	D420004	2.7	---		2		---		50			
		Soil of Holodiscus Boursieri		EFN512			---		30		---		150		
50b	P-7	Sambucus microbotrys	Leaves	D420005	11	---			N		---	5			
	P-8	--------do--------	berries	D420006	21	---		N		---		N			
	P-9	--------do--------	roots	D420007	7.8	---		2		---		10			
	S-3	Soil of Sambucus microbotrys		EFN513			---		1.5		---		70		
	P-10	Holodiscus Boursieri	leaves and twigs	D420008	4.6	---			1.5		---	50			
	S-4	Soil of Holodiscus Boursieri		EFN514			---		0.2		---		50		
		Montague mine, California (Ag, Au, Mo, W)													
56	P-1	Eriogonum ovalifolium v. nivale	above ground	D420016	16	---		1		---		50		150Cr;150Ni	
	S-2	Soil of Eriogonum ovalifolium v. nivale		EFN518			---		2		---		50		
	P-2	Phacelia frigida	above ground	D20017	20	---		N		---		7			
	S-4	Soil of Phacelia frigida		EFN523			---		3		---		50		
	P-3	Phacelia frigida	above ground	D20018	30	---		2		---		30		150Cr;100Ni	
	P-4	Lupinus hypolasius	above ground	D21050	9	.02		0.5		16		10		1000Zn;1500S	
	S-3	Soil of Lupinus hypolasius		EFN524			---		1.5				30	10,000Ba	
	S-1	Soil above dump		EFN517			---		3		---		30		
		Morning Star mine, California (Au, Ag)													
45	P-1	Prunus virginiana	berries	D419986	3.8	.01		N		9.2		L			
	P-2	------do------	leaves	D419987	12.2	.04		2		28.7		20			
	P-3	------do------	stems	D419988	2.8	.05		.5		18		150		1500Zn	
	S-1	Soil of Prunus virginiana		EFN501		0.4			1.5		40		100		
	P-4	Holodiscus Boursieri	leaves and twigs	D419989	5.5	---		0.3	---			70			
	S-2	Soil of Holodiscus Boursieri		EFN502			<.05		1.5		30		70		
		Chemung mine, Masonic district, California (Au, Ag)													
46	P-1	Eriogonum caespitosum	above ground	D419990	39	2		10		51		200			
	S-1	Soil of Eriogonum caespitosum		EFN503			.05		5		20		300		
	P-2	Holodiscus Boursieri	leaves and twigs	D419991	4.5	.05		0.2		4.4		30			
	S-2	Soil of Holodiscus Boursieri		EFN5034			<.05		1		5		30		
	P-3	Zannichellia in spring	entire	D421045	29	2.3		5		69		70		610,000Mn;20,000Ba	
		Serita mine, Masonic district, California (Au)													
47	P-1	Cercocarpus ledifolius	leaves and twigs	D419992	4.5	0.07		1		15		70		5000Ba;20Bi	
	S-1	Soil of Cercocarpus ledifolius		EFN505			1		30		350		1500		500Bi;700Sb
	P-2	Holodiscus Boursieri	leaves and twigs	D419993	2.6	0.02		N		5.1		30		7000Ba	
	S-2	Soil of Holodiscus Boursieri		EFN506			<.05		0.5		15		190		
48	P-1	Cercocarpus ledifolius	leaves and twigs	D419995	3.8	0.01		N		2.6		30			
	S-1	Soil of Cercocarpus ledifolius		EFN507			N		N		5		50		
	P-2	Eriogonum caespitosum	entire	D419994	38	.01		N		4.7		20			
	S-2	Soil of Eriogonum caespitosum		EFN508			N		L		5		70		
		Frederick mine, Sweetwater Mountains, California (Au)													
54a	P-1	Eriogonum ovalifolium v. nivale	entire	D420015	46	<.01		0.7		30		15		150Cr;100Ni	
	S-1	Soil of Eriogonum ovalifolium v. nivale (s. of mine)		EFN516			<.05		1.5		45		30		50Cr;15Ni
54c	P-1	moss on portal rock	entire	D421049	29	0.4		50		93		50		500Cr;5000S;50Ni	
		Aurora district, Nevada (Au, Ag)													
20b	P-1	Algae in tailings pond	entire	D419944	59	0.15		3		100		15			
	P-2	Juncus balticus	leaves	D419945	7	<.01		0.2		8.6		5			
	S-1	Muck of tailings pond		EFN476			.05		3		20		30		
20a	P-3	Moss at mine diggings	entire	D419943	13.5	.02		N		5.9		L			
20c	P-4	Ranunculus Cymbalaria	entire	D419969	13.6	<.01		5		13		100		350W	
	S-2	muck below Ranunculus Cymbalaria		EFN477			<.05		1		6		30		
		Bodie district, California (Au, Ag)													
21a	S-1	Stream sediment		EFN478			0.4		7		20		50		
21b	P-1	Filamentous algae	entire	D419970	51	.55		7		196		30		50Co	
21d	P-1	Artemisia arbuscula	tips	D419981	4.9	.04		0.3		16		30			
	S-1	Soil of Artemisia arbuscula		EFN520			.25		3		50		70		

Table 4. Uranium in soils and the ash of plants from radioactive areas, shown in parts per million
(Analysts: F. P. Welsch, M. L. Tuttle, and T. F. Harms)
[Leader (--) indicates not requested and <, less than]

Sta. No.	Field No.	Sample description	Part of plant	Laboratory no.	Percent ash yield	Uranium Plant	Uranium Soil	Other elements in anomalous quantities Plant	Other elements in anomalous quantities Soil	Radioactivity level mr/hr
		Holiday mine (thorite, uranothorite)								
40	P-1	Atriplex confertifolia	leaves and twigs combined	D419980	18	<0.4				0.3 at adit
	S-1	Soil of Atriplex confertifolia		EFN296			0.8			3.5 at winze 4.0 at rockface
		Juniper mine (autonite)								
41	P-1	Carix abrupta	above ground	D419984	5.8	200				
	S-1	Stream sediment		EFN499			20			
	P-2	Salix lemmoni	leaves	D419985	17	100				
	S-2	Soil of Salix lemmoni		EFN500			30			
	P-3a	Juniperus occidentalis	tips	D421039	4.1	0.4				
	P-3b	----------do----------	dead wood	D421040	4.2	0.8				
	P-3c	----------do----------	roots	D421041	2.7	2.8				
	P-4a	Pinus albicaulis	needles	D421042	2.2	16				
	P-4b	-------do-------	twigs	D421043	1.8	35				
		Nyemin mine (autonite)								
8	P-1	Atriplex confertifolia	leaves and twigs	D419930	49	2				
	S-1	Soil of Atriplex confertifolia		EFN465			4			
	P-2a	Atriplex confertifolia	leaves and twigs	D419931	25	2			1	
	P-2b	----------do----------	old wood	D419932	8.5	4.5				
		Ule-Ann claims (carnotite)								
10	P-1	Atriplex confertifolia	leaves and twigs	D419933	48	2				
	S-1	Soil of Atriplex confertifolia		EFN466			30			
		N. of Gillis Range (Th)								
33	P-1	Stanleya pinnata	above ground	D419972	5.9	<.4		50 W		
	S-1	Soil of Stanleya pinnata		EFN490			0.6			0.175
		Shore of Walker Lake (Cu)								
17	P-1	Tamarix pentandra	tips	D419939	10.4	1.2				
	P-2	Algae in lake	entire	D419940	17	5.5		60 Li		
	S-1	Salt crust and surface soil		EFN473			2		29 Li	
		East Fork, Walker River (U)								
26	P-1	Atriplex confertifolia	leaves and twigs	D419954	15	<0.4				
	P-2	Eriogonum ovalifolium var. multiscapum	scapes	EFB246	4.2	30		0.7 Ag;200 Co; 100 Ni		
			leaves	EFB247	12.6					
	S-1	Soil of multiscapum		EFN483			1.0		10 Co	
	P-3	Oenothera allyssoides	above ground	D419955	9.9	<0.4				
	S-2	Soil of Oenothera allyssoides					0.9			
27	P-1	Eriogonum ovalifolium var. multiscapum	heads	EFB248	10.4	20		N Ag		
			scapes	EFB249	6.3	20		3 Ag		
			leaves	EFB250	11.8	7		0.7 Ag		
			roots	EFB251	10.8	15		N Ag		
42	P-1	Eriogonum ovalifolium var. multiscapum	leaves	EFB253	11.6	25		3000 Ba		0.15
		Rainbow rare earth mine (U)								
43	P-1	Eriogonum Wrightii ssp. subscapum	scapes	EFB254	4	20		10 Y		
			leaves	EFB255	11.2	8		15 Y		
	S-1	Soil		EFB216			---		30 Y,50 La	
		Monitor Pass (U)								
44	P-1	Eriogonum Wrightii ssp. subscapum	scapes	EFB256	3	25		50 Cr		
			leaves	EFB257	6.2	25		70 Cr		

Table 5. Some elements in sediments and the ash of plants from deposits of industrial minerals, shown in parts per million
(Analysts: E. L. Mosier, Clara Papp, and T. F. Harms)
[Leader (---) indicates not requested; N, not detected; <, less than, L, less than detection limit; and G, greater than detection limit]

Sta. No.	Field No.	Sample description	Part of plant	Laboratory no.	Percent ash yield	Total Sulfur Plant	Total Sulfur Soil	Calcium Plant	Calcium Soil	Barium Plant	Barium Soil	Strontium Plant	Strontium Soil	Boron Plant	Boron Soil	Sodium Plant	Sodium Soil	Lithium Plant	Lithium Soil	Magnesium Plant	Magnesium Soil	Other elements in anomalous quantities Plant
		Leviathan mine, California (S)																				
52	P-1	Algae	entire	D420010	49	17,000		---		3,000		1,000		20		1,000		N		15,000		10,200As;100Bi;50Tl
	P-2	Apocynum sp.	leaves and twigs	D420011	5.7	40,000		---		1,500		2,000		300		500		N		50,000		4.0As
		Dover mine, Nevada (talc, Au)																				
16	P-1	Atriplex spinifera	leaves and twigs	D419938	26	---		---		200		700		200		650,000		N		15,000		
	S-1	Stream sediment		EFN472			---		15,000		500		300		15		---		---		15,000	
		Rhodes salt marsh, Nevada (NaCl, B, Na_2SO_4)																				
15	P-1	Allenrolfea occidentalis	tips	D419976	41	---		---		N		150		500		650,000		<4		10,000		
	S-1	Soil of Allenrolfea occidentalis		EFN471			---		20,000		700		500		1,500		---		33		15,000	
		Teel's Marsh, Nevada (NaCl, B, zeolites)																				
38	P-1	Sarcobatus vermiculatus	tips	D419977	19	---		---		N		700		500		650,000		370		10,000		
	S-1	Soil of Sarcobatus vermiculatus		EFN495			---		30,000		300		1,000		150		---		140		7,000	
	P-2	Algae		D419978	56	---		---		300		500		700		10,000		150		10,000		G100Ge
		Bridgeport travertine deposits, California																				
25a	P-1	Algae in stream	entire	D419952	69	---		---		700		G5,000		500		20,000		570		15,000		100Ge
	P-2	Sarcobatus vermiculatus	tips	D419953	13.5	---		---		N		3,000		300		650,000		470		20,000		
	S-1	White crust on soil		EFN482			---		15,000		100		1,000		500		---		300		5,000	
25b	P-1	Algae in hot spring	entire	D419982	85	---		---		300		1,000		100		7,000		30		3,000		
	P-2	Scirpus americanus	above ground	D419983	19	---		---		100		G5,000		G1,000		1,500		200		10,000		100Ge
	S-1	White incrustations in hot springs		EFN498			---		150,000		200		G5,000		500		---			700	30,000	
		Garfield Flat, Nevada																				
12	P-1	Sarcobatus vermiculatus	tips	D419936	24	---		---		70		500		150		650,000		17.		10,000		
	S-1	Playa mud of Sarcobatus vermiculatus		EFN468			---		15,000		500		300		20		---		45		15,000	
		Mono Lake sediments, California (travertine)																				
22	P-1	Algae in spring	entire	D419946	36	7,500		---		500		500		1,000		2,000		L		15,000		
	P-2	Algal biscuit in lake	entire	D419947	86	6,600		---		500		150		1,000		650,000		5,000		70,000		
	S-1	Salt crust on lake edge		EFN479			---		100,000		500		500		1,000		---		---		30,000	

Table 6. Some elements in sediments and the ash of plants from springs, and near a mineralized well, shown in parts per million
(Analysts: T. F. Harms, E. L. Mosier, D. Kisel, E. F. Cooley, E. P. Welsch, and M. L. Tuttle)
[Leader (---) indicates not requested; N, not detected; and G, greater than detection limit]

Sta. No.	Field No.	Sample description	Part of plant	Laboratory no.	Percent ash yield	Uranium Plant	Uranium Soil	Tungsten Plant	Tungsten Soil	Lithium Plant	Lithium Soil	Beryllium Plant	Beryllium Soil	Molybdenum Plant	Molybdenum Soil	Copper Plant	Copper Soil	Other elements in anomalous quantities Plant	Other elements in anomalous quantities Soil
		Hot Springs, Nevada																	
7	P-1	Algae	entire	D419929	85	0.4		N		50		5		7		20		0.3Ag;75Ga;30La;20Y	
	S-1	Blue mud		EFN464			.4		N		55		1.5		5		15		20La;15Y
		Fale's Hot Springs, California																	
24	P-1	Algae	entire	D419950	83	---		N		19		100		N		50		20Ge;100,000Fe;9,300As;10,000Mn	
	P-2	Mimulus guttatus	entire	D419951	30	---		N		160		1		7		100			
	S-1	Black muck		EFN481			---		N		50		5		7		70		70,000Fe;1,000Mn
		Warm Springs, California																	
23	P-1	Algae	entire	D419948	79	---		N		16		2		2		15		1,000Ba	
	P-2	Rorippa sp.	entire	D419949	26	---		N		16		N		10		7		1,000Ba	
	S-1	Black muck		EFN480			---		N		28		1.5		N		10		
		Long Doctor Spring, Nevada																	
43a	P-1	Filamentous algae	entire	D421044	31	---		N		---		N		50		15		.2Ag;G100Ge	
		Dead Horse Well, Nevada																	
32	P-1	Sarcobatus vermiculatus	leaves and twigs	D419971	25	<.4		160		500		N		10		100			
	S-1	Soil		EFN489			6		1,500		---		1.5		100		3,000		7Ag;70Bi;300V;G5,000Mn

PLATE 2-TABLES 1-6, WALKER LAKE 1° x 2° QUADRANGLE

By

H. L. Cannon , Sara Trimby, T. F. Harms, and E. L. Mosier

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