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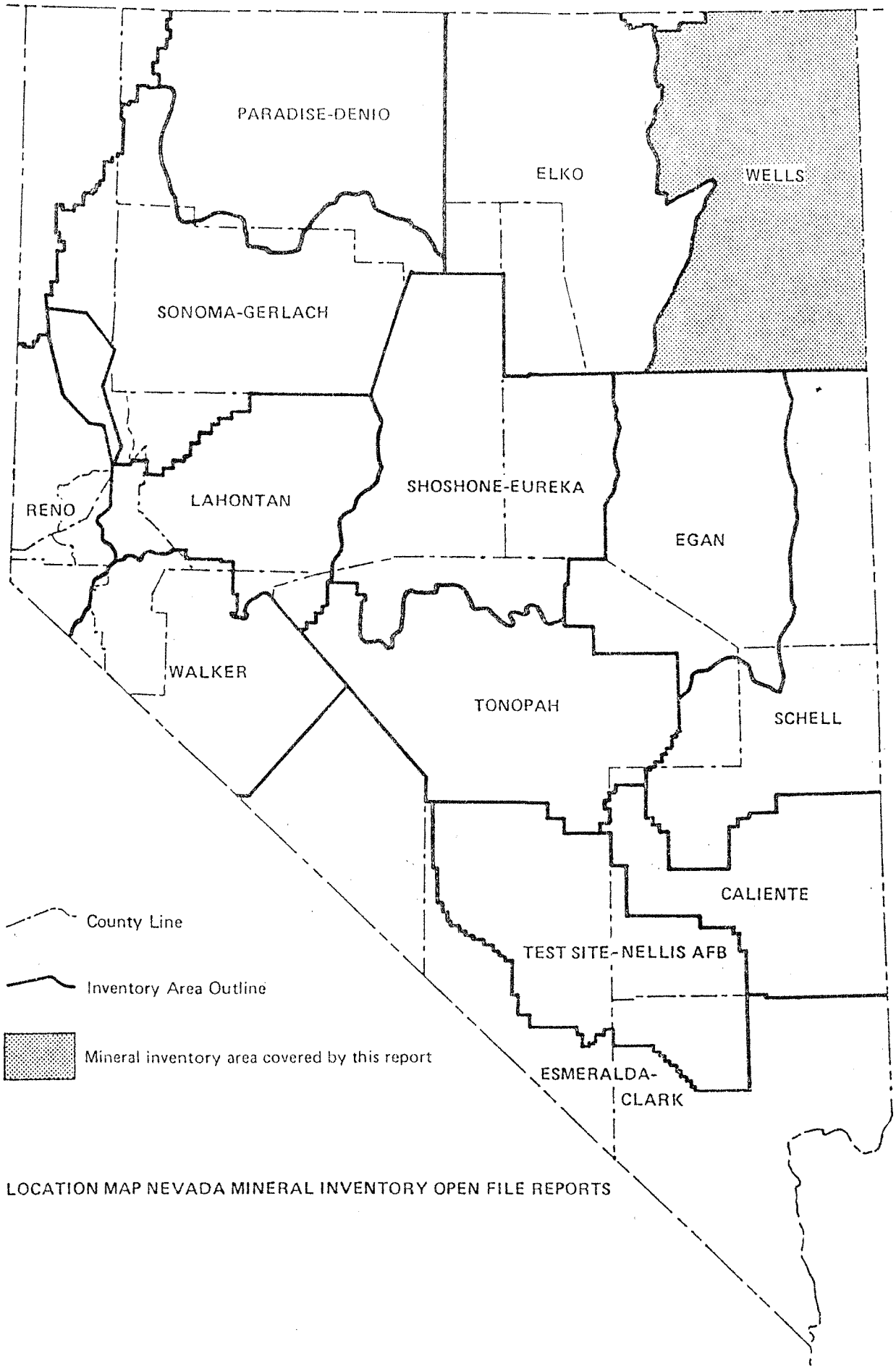
NBMG OPEN-FILE REPORT 81–3

RESULTS OF GEOCHEMICAL SAMPLING WITHIN THE WELLS RESOURCE AREA, ELKO COUNTY, NEVADA (PORTIONS OF THE WELLS AND ELKO 2° SHEETS)

Samples collected by NBMG and analyzed by Branch of Exploration Research, USGS, as part of the Mineral Inventory of the Wells Resource Area, BLM Contract YA-512-CT9-156

See NBMG 81–4 for Summary Report.



LOCATION MAP NEVADA MINERAL INVENTORY OPEN FILE REPORTS

Sample Description

Sample Number	Location	Description
001	Quad: Delano Mt. Sec: 18 T: 43N R: 67E UTM: 4610350 N 0714120 E	Rock, opalite along fault zone, silicified.
	Quad: Sec: T: R: UTM: N E	
	Quad: Sec: T: R: UTM: N E	
	Quad: Sec: T: R: UTM: N E	
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	Quad: Sec: T: R: UTM: N E	

Sample Description

Sample Number	Location	Description
002	Quad: Delano Mt. Sec: 17 T: 44N R: 67E UTM: 4619530 N 0715730 E	Dump, Jsp. breccia, gossan from fault zone, Feox, calcite, Qtz. xls.
003	Quad: Delano Mt. Sec: 17 T: 44N R: 67E UTM: 4619620 N 0715490 E	Dump, vein quartz, Feox.
004	Quad: Henry Sec: 34 T: 45N R: 63E UTM: 4623230 N 0680560 E	Rock, granodiorite, bleached, kaolinized, green-stained feldspars.
006	Quad: Jackson Spring Sec: 21 T: 41N R: 70E UTM: 4590440 N 0746960 E	Rock, brick-red and yellow-brown gossan, jasperoid, from "High-grade pile" near shaft collar.
007	Quad: Jackson Spring Sec: 21 T: 41N R: 70E UTM: 4590440 N 0746960 E	Dump, same as above, some cerussite.
008	Quad: Pilot Peak NW Sec: 36 T: 38N R: 68E UTM: 4556920 N 0732280 E	Quartzite breccia, Jasper, Feox.
009	Quad: Pilot Peak NW Sec: 36 T: 38N R: 68E UTM: 4557080 N 0732270 E	Dump, sample composited from several dumps, massive Jsp, MxO, Feox.
010	Quad: Pilot Peak NW Sec: 1 T: 37N R: 68E UTM: 4556160 N 0732600 E	Fractured white quartzite, minor Cuox.
011	Quad: Pilot Peak SW Sec: 11 T: 37N R: 68E UTM: 4554380 N 0732230 E	Dump, massive brown jasperoid.

Sample Description

Sample Number	Location	Description
012	Quad: Pilot Peak SW Sec: 11 T: 37N R: 68E UTM: 4554380 N 0732230 E	Rock, porphyry dike, Feox-stained, kaolinized.
013	Quad: Pilot Peak SW Sec: 11 T: 37N R: 68E UTM: 4553590 N 0731810 E	Rock, massive hematite-limonite, jasper gossan.
014	Quad: Pilot Peak SW Sec: 12 T: 37N R: 68E UTM: 4553920 N 0732570 E	Rock chip, intrusive outcrop, Feox-stained, silicified Qtz monzonite.
015	Quad: Miners Canyon Sec: 20 T: 36N R: 70E UTM: 4541040 N 0746260 E	Dump, massive jasperoid, red-brown hematite clots, fine-grained silica in vugs.
017	Quad: Silver Zone Pass Sec: 28 T: 35N R: 68E UTM: 4529550 N 0727600 E	Dump, vein material, white quartz, tetrahedrite, Cu ox staining.
018	Quad: Silver Zone Pass Sec: 8 T: 35N R: 68E UTM: 4533600 N 0727060 E	Dump, white vein quartz, limonite box-works, clots galena.
019	Quad: Spruce Mt. Sec: 21 T: 31N R: 63E UTM: 4490630 N 0681100 E	Dump, massive jasperoid with cerrusite, in brecciated quartzite.
020	Quad: Spruce Mt. Sec: 23 T: 31N R: 63E UTM: 4491580 N 0683450 E	Dump, gossan in brecciated limestone, Feox, cerussite, pyrite, calcite veining.
021	Quad: Spruce Mt. Sec: 14 T: 31N R: 63E UTM: 4492670 N 0684310 E	Dump, rhyolite porphyry, kaolinized, sericitized, fine-grained sulfide (MoS_2?)

Sample Description

Sample Number	Location	Description
022	Quad: Spruce Mt. Sec: 13 T: 44N R: 63E UTM: 4492800 N 0685350 E	Dump, goassan material, Cuox, chalcocite, chalcopyrite, pyrite, calcite veining.
023	Quad: Spruce Mt. Sec: 18 T: 31N R: 64E UTM: 4492600 N 0686680 E	Outcrop, grab, rhyolite porphyry, silicified, kaolinized, Cuox, MoS_2 (?)
024	Quad: Spruce Mt. Sec: 18 T: 31N R: 64E UTM: 4492550 N 0686850 E	Dump, rhyolite porphyry, sericitized, Cuox, Feox, disseminated sulfides.
025	Quad: Spruce Mt. Sec: 8 T: 31N R: 64E UTM: 4493730 N 0688200 E	Dump, gossan in limestone breccia, Cuox, Feox, fine-grained sulfides.
026	Quad: Spruce Mt. Sec: 7 T: 31N R: 64E UTM: 4493790 N 0687370 E	Dump, silicified silty limestone, disseminated pyrite, MnO, calcite.
027	Quad: Knoll Mt. Sec: 18 T: 43N R: 65E UTM: 4608500 N 0695220 E	Dump, silty ls with Feox, quartz, calcite, gossan material.
028	Quad: Blanchard Mt. Sec: 5 T: 44N R: 65E UTM: 4612660 N 0697450 E	Rock, fault breccia, Feox, Cuox
030	Quad: Blanchard Mt. Sec: 29 T: 44N R: 65E UTM: 4615930 N 0697600 E	Dump Quartzite, Feox staining.
032	Quad: Snow Water Lake NE Sec: 7 T: 35N R: 64E UTM: 4533870 N 0686000 E	Specimen of vein material, breccia with calcite, jasper, mariposite.

Sample Description

Sample Number	Location	Description
034	Quad: Snow Water Lake NE Sec: T: R: UTM: 4534740 N 0686830 E	Dump, vein quartz, disseminated specular hematite.
036	Quad: Snow Water Lake NE Sec: T: R: UTM: 4534900 N 0686780 E	Dump, shattered, Feox-stained marble.
037	Quad: Franklin Lake 1 NE Orthophoto Sec: T: R: UTM: 4474960 N 0669380 E	Dump, skarn, silicated ls, Cuox, Feox.
040	Quad: Franklin Lake 1 NE Sec: T: R: UTM: 4471060 N 0667430 E	Drill cuttings, pyrite-rich.
041	Quad: Franklin Lake 1 NE Sec: T: R: UTM: 4471060 N 0667430 E	Dump, jasper, gossan, silica veining, clots alunite.
042	Quad: Franklin Lake 1 NE Sec: T: R: UTM: 4471060 N 0667430 E	Rock, silicified intrusive, K-feldspar flooding, Feox
043	Quad: Franklin Lake 1 SW Sec: T: R: UTM: 4462170 N 0656370 E	Dump, vein material, massive brown-red-brown jasper, white barite xls, gossan, MnO.
044	Quad: Franklin Lake 1 SW Sec: T: R: UTM: 4462250 N 0656320 E	Dump, vein material, barite, cerussite, MnO.
045	Quad: Franklin Lake SW Sec: T: R: UTM: 4463060 N 0629530 E	Dump, grab. Garnet-epidote tactite from dump at adit on slope south of old camp.

Sample Description

Sample Number	Location	Description
046	Quad: Franklin Lake SW Sec: T: R: UTM: 4466960 N 0629080 E	Vein material, high-grade from dump, galena, sphalerite, Cuox, quartz.
047	Quad: Lamoille Sec: 1 T: 30N R: 58E UTM: 4485480 N 0636950 E	Dump, grab white vein quartz with clots sphalerite, galena, some tremolite.
049	Quad: Ferguson Mt. Sec: 33 T: 30N R: 69E UTM: 4478600 N 0737600 E	Dump, gossan with Feox, Cuox, MnO.
050	Quad: Ferguson Springs Planimetric Sec: 10 T: 27N R: 70E UTM: 4457550 N 0749610 E	Dump, skarn, Cuox, pale green calcite, green garnet.
052	Quad: Ferguson Springs Planimetric Sec: T: R: UTM: 4459050 N 0750365 E	Rock, skarn, Feox, Cuox.
054	Quad: Ferguson Springs 2SE Planimetric Sec: T: R: UTM: 4462080 N 0731360 E	Dump, massive garnet tactite, specular hematite.
056	Quad: Currie 1 NE Orthophoto Sec: 17 T: 29E R: 66E UTM: 4474230 N 0707260 E	Dump, quartz monzonite, large K-feldspar phenocrysts, sericite, quartz veinlets, clots chalcopyrite, copper pitch.
057	Quad: Currie 1 NE Orthophoto Sec: T: R: UTM: 4474180 N 0707350 E	Dump, vein material, gossan, Cuox, Feox.
058	Quad: Currie 1 NE Orthophoto Sec: T: R: UTM: 4474180 N 0707350 E	Melrose stock, quartz monzonite, quartz veining, sericite.

Sample Description

Sample Number	Location	Description
059	Quad: Currie 1 NE Sec: 18 T: 29N R: 66E UTM: 4473820 N 0706110 E	Dump, cellular gossan, jasperoid, Cuox staining calcite.
060	Quad: Currie 1 NE Sec: 18 T: 29N R: 66E UTM: 4973870 N 0795980 E	Rock, grab, jasper, silicified, Feox stain.
061	Quad: Currie 1 NE Sec: 18 T: 29N R: 66E UTM: 4473870 N 0706030 E	Dump, skarn, silicated limestone, specular hematite, Cuox.
062	Quad: Ferguson Springs Planimetric Sec: 18 T: 26N R: 68E UTM: 4445040 N 0726490 E	Dump, quartz porphyry, silicified, rounded, clear quartz phenocrysts in silica matrix, disseminated pyrite.
063	Quad: Ferguson Springs Planimetric Sec: 18 T: 26N R: 68E UTM: 4445040 N 0726490 E	Dump, skarn, diopside, tremolite, garnet, epidote, clots MoS_2, pyrite, some chalcopyrite.
064	Quad: Ferguson Springs Planimetric Sec: 18 T: 26N R: 68E UTM: 4445040 N 0726490 E	Dump, vein material, vuggy quartz, Cuox, Mn, some galena, dark brown jsp. gossan, some clots pyrite.
066	Quad: Ferguson Springs Planimetric Sec: 17 T: 26N R: 68E UTM: 4444910 N 0726810 E	Dense, siliceous rock with clots pyrite, Cuox staining, hematite, limonite staining on fractures.
067	Quad: Ferguson Springs 3NE Orthophoto Sec: 8 T: 27N R: 68E UTM: 4446050 N 0726080 E	Dense red-brown jasper, hematite, calcite crystals.
068	Quad: Ferguson Springs Planimetric Sec: 24 T: 26N R: 67E UTM: N E	Gossan material, siliceous, with Cuox, Feox.

Sample Description

Sample Number	Location	Description
070	Quad: Ferguson Springs Planimetric Sec: 24 T: 26N R: 67E UTM: N E	Gossan material, jasper, vein quartz with Cuox.
072	Quad: Ferguson Springs 2 SW Sec: T: R: UTM: 4465410 N 0715240 E	Drill cuttings, sulfide-quartz rich cuttings from pile near collar, hole in breccia pipe, highly silicified. Feox stained jsp.
073	Quad: Ferguson Springs 2 SW Sec: 13(?) T: 28N R: 67E UTM: 4465570 N 0715330 E	Dump sample, quartz calcite vines, Cuox and Feox.
074	Quad: Ferguson Springs 2 SW Sec: 13(?) T: 28N R: 67E UTM: 4465770 N 0715580 E	Dump sample, limestone breccia, cemented by Cuox and Feox.
075	Quad: Ferguson Springs 2 SW Sec: 18 T: 28N R: 67E UTM: 4465890 N 0715780 E	Dump sample. Gossan, japer, some galena, cerrusite, barite.
075S	Quad: Ferguson Springs 2 SW Sec: 18 T: 28N R: 67E UTM: 4465890 N 0715780 E	Selected sample of sulfides, galena, pyrite, sphalerite, some white quartz.
076	Quad: Currie 1 SE Sec: 1 T: 28N R: 65E UTM: 4467050 N 0704480 E	Dump, skarn, endoskarn, green zoned garnets, tremolite, Cuox, Feox.
078	Quad: Ruby Lake NW Sec: 23 T: 27N R: 58E UTM: 4452370 N 0636180 E	Dump sample, skarn, mass magnetite, jasper.
082	Quad: Jarbidge 15' Sec: 16 T: 46N R: 58E UTM: 4636690 N 0630850 E	Dump, vein material, silicified MnO and Feox

Sample Description

Sample Number	Location	Description
083	Quad: Jarbidge 15' Sec: 15 T: 46N R: 58E UTM: 4636150 N 0631810 E	Dump, vein material, quartz, adularia, some MnO.
084	Quad: Jarbidge 15' Sec: 15 T: 46N R: 58E UTM: 4636380 N 0631690 E	Outcrop, rhyolite breccia, silicified Feox stain.
085	Quad: Jarbidge Sec: 16 T: 46N R: 58E UTM: 4636880 N 0630420 E	Dump, vein Quartz adularia, black metallic specks.
086	Quad: Jarbidge 15' Sec: 28 T: 46N R: 58E UTM: 4634350 N 0630600 E	Dump, vein material, quartz adularia after calcite.
087	Quad: Jarbidge Sec: 24 T: 45N R: 57E UTM: 4626470 N 0625500 E	Massive garnet tactite, banded along bedding, disseminated MoS_2, some pyrite.
088	Quad: Marys River Basin NW Sec: 24 T: 44N R: 57E UTM: 4626480 N 0625490 E	Dump, vein material, quartz, pyrite, galena(?), arsenopyrite(?)
089	Quad: Montello Canyon Sec: 24 T: 39N R: 67E UTM: 4570350 N 0721910 E	Dump, vein quartz, Trace Feox
090	Quad: Montello Canyon Sec: 24 T: 39N R: 67E UTM: 4570390 N 0721830 E	Dump, calcite vein, black paper shale
091	Quad: Patterson Pass Sec: 21 T: 39N R: 70E UTM: 4570380 N 0747800 E	Dump, kaolinized granite, sulfides along mica veinlets.

Sample Description

Sample Number	Location	Description
092	Quad: Patterson Pass Sec: 21 T: 39N R: 70E UTM: 4570380 N 0747800 E	Dump, gossan, jasper
093	Quad: Tecoma Sec: 16 T: 39N R: 70E UTM: 4571200 N 0747500 E	Dump, gossan, jasper
094	Quad: Halleck Planimetric Sec: 22 T: 33N R: 61E UTM: 4509800 N 0663040 E	Dump, gossan, jasper, calcite rosettes.
095	Quad: Morgan Pass Sec: 6 T: 32N R: 68E UTM: 4506300 N 0725010 E	Dump, massive pyrolusite, jasper, some quartz.
096	Quad: Morgan Pass Sec: T: R: UTM: 4506250 N 0724950 E	Dump, iron-rich gossan, low MnO, north of main mine on small incline shaft.
097	Quad: Pequop Summit Sec: 21 T: 37N R: 66E UTM: 4549660 N 0708790 E	Outcrop, massive dull cinn-brown jasper, some bladed barite crystals.
101	Quad: Wine Cup Ranch SW Sec: 10 T: 39N R: 64E UTM: 4572330 N 0691090 E	Dump, limestone, Feox, galena(?)
102	Quad: Wine Cup Ranch SW Sec: NE 1/4 10 T: 39N R: 64E UTM: 4572460 N 0691000 E	Grab, ore pile, jasperoidal limestone, Feox stain.
103 A&B	Quad: Wine Cup Ranch SW Sec: 10 T: 39W R: 64E UTM: 4571780 N 0691400 E	Selected dump (2 bags, same material) brecciated limestone with Feox, galena.

Sample Description

Sample Number	Location	Description
104A	Quad: Wine Cup Ranch SW Sec: 2 T: 39N R: 64E UTM: 4574060 N 0691790 E	Grab, barite.
104B	Quad: Wine Cup Ranch SW Sec: T: R: UTM: 4574060 N 0691790 E	Grab, sulfides.
105	Quad: Elk Mountain Sec: 10 T: 46N R: 61E UTM: 4638900 N 0661050 E	Rock, grab. Tactite with Cuox, chalcopyrite, WO_3 (?)
106	Quad: Elk Mountain Sec: 10 T: 46N R: 61E UTM: 4638900 N 0661050 E	Rock, grab, aplite dike.
107	Quad: Elk Mountain Sec: 10 T: 46N R: 61E UTM: 4639060 N 0661060 E	Rock, grab, outcrop quartz monzonite.
109	Quad: Elk Mountain Sec: 4 T: 46N R: 61E UTM: 4638250 N 0660120 E	Rock grab, quartz monzonite, Cuox stain.
110	Quad: Elk Mountain Sec: 4 T: 46N R: 61E UTM: 4641200 N 0659710 E	Rock grab, tactite, Cuox, WO_3(?)
111	Quad: Elk Mountain Sec: 4 T: 46N R: 61E UTM: 4641300 N 0659110 E	Rock grab, quartzite
112	Quad: Moor Summit Sec: 13 T: 37N R: 63E UTM: 4550460 N 0685200 E	Dump, gossanous jasperoid, Feox, silica.

Sample Description

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113	Quad: Moor Summit Sec: 24 T: 37N R: 63E UTM: 4549730 N 0684660 E	Dump, gossanous jasperoid
201	Quad: Dairy Valley Sec: 35 T: 45N R: 68E UTM: 4625470 N 0730100 E	Granite, Feox and MnO staining.
202	Quad: Dairy Valley Sec: 35 T: 45N R: 68E UTM: 4625400 N 0730590 E	Core, fragments gathered from vicinity of drill hole.
203	Quad: Dairy Valley Sec: 35 T: 45N R: 68E UTM: 4625550 N 0730120 E	Granite outcrop
204	Quad: Delano Mountain Sec: 28 T: 44N R: 68E UTM: 4616700 N 0727000 E	Dump, gossan material, jasperoid, Cuox staining.
206	Quad: Delano Mountain Sec: 33 T: 44N R: 68E UTM: 4615700 N 0727020 E	Dump, gossan material, replacement horizon in sandy limestone.
207A	Quad: Delano Mountain Sec: 28 T: 44N R: 68E UTM: 4616200 N 0728110 E	Dump, gossan in limestone, replacemen along bedding.
207B	Quad: Delano Mountain Sec: 28 T: 44N R: 68E UTM: 4616200 N 0728110 E	
208	Quad: Delano Mountain Sec: 28 T: 44N R: 68E UTM: 4616130 N 0728050 E	Dump, gossan material.

Sample Description

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210	Quad: Delano Mountains Sec: 17 T: 44N R: 67E UTM: 4619510 N 0715200 E	Dump, gossan
211	Quad: Delano Mountains Sec: 16 T: 44N R: 67E UTM: 4619330 N 0715510 E	Dump, gossan, MnO, Feox, calcite, black calcite, yellow staining.
212	Quad: Texas Spring Sec: T: R: UTM: 4612590 N 0699970 E	Dump, grab quartzite, breccia and rubble Feox gossan
213	Quad: Contact Sec: 25 T: 63N R: 45E UTM: N E	Dump, Feox stained, intrusive, Cuox in veinlets.
214	Quad: Contact Sec: 25 T: 63N R: 45E UTM: 4625240 N 0683140 E	Dump, "ore", granodiorite with Cuox, Feox.
215	Quad: Henry Sec: 3 T: 44N R: 63E UTM: 4622340 N 0680000 E	Dump, "ore", Cuox in silicified limestone.
216A	Quad: Henry Sec: 3 T: 44N R: 63N UTM: 4622290 N 0680070 E	Dump, "ore", Cuox in silicified limestone.
216B	Quad: Henry Sec: 3 T: 44N R: 63E UTM: 4622290 N 0680070 E	Possible duplication - this sample fits description.
217	Quad: Henry Sec: 3 T: 44N R: 63E UTM: 4621550 N 0680910 E	Dump, altered intrusive.

Sample Description

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220	Quad: Henry Sec: 2 T: 44N R: 63E UTM: 4622510 N 0681770 E	Dump, granodiorite, Cuox, Feox.
222	Quad: Blanchard Mountain Sec: 8 T: 44N R: 65E UTM: 4620060 N 0697300 E	Dump, vein quartz, jasperoid Cuox, Feox
223	Quad: Texas Springs Sec: 9 T: 44N R: 65E UTM: 4620690 N 0697990 E	Dump, intensive with quartz veins, high conc. of K-feldspar.
225	Quad: Texas Spring Sec: 10 T: 44N R: 65 UTM: 4620880 N 0700520 E	Dump, diorite with quartz veins, Cuox, Feox, jasperoid.
226	Quad: Texas Spring Sec: 36 T: 65N R: 45E UTM: 4624320 N 0702150 E	Dump, silicified rhyolite breccia, Feox, quartz veinlets vugs, some pale brown jasperoid.
227	Quad: Jackson Spring Sec: 18 T: 41N R: 70E UTM: 4591570 N 0744740 E	Dump, limestone with Feox-filling fractures, calcite rosettes, MnO.
228	Quad: Jackson Springs Sec: 18 T: 41N R: 70E UTM: 459670 N 0744870 E	Dump, dike rock, silicified, Feox-stained.
229	Quad: Jackson Spring Sec: 4 T: 41 R: 70 UTM: 4594070 N 0747080 E	Dump, siliceous gossan, calcite veinlets, in limestone.
230	Quad: Jackson Spring Sec: 21 T: 41N R: 70E UTM: 4590460 N 0746830 E	Kaolinized dike, from dump, Feox stain.

Sample Description

Sample Number	Location	Description
231	Quad: Jackson Spring Sec: 7 T: 41N R: 70E UTM: 4592290 N 0744460 E	Dump, vein quartz with tetrahedrite, Cuox.
232	Quad: Pilot Peak NW Sec: 36 T: 38N R: 68E UTM: 4557080 N 0732270 E	Dump, Feox stained aplite dike, kaolinized, sericitized.
233	Quad: Pilot Peak SW Sec: 1 T: 37N R: 68E UTM: 4554750 N 0732920 E	Dump, Feox-stained granodiorite.
234	Quad: Pilot Peak SW Sec: 1 T: 37 R: 68 UTM: 4554750 N 0732920 E	
235	Quad: Pilot Peak SW Sec: 12 T: 37N R: 68E UTM: 4554230 N 0732360 E	Dump, Feox-stained intrusive.
236	Quad: Cobre SE Sec: 4 T: 37N R: 68E UTM: 4555560 N 0728040 E	Dump, veins, quartz with galena, cerussite, Feox.
237	Quad: Cobre SE Sec: 4 T: 37N R: 68E UTM: 4555980 N 0727640 E	Dump, jasperoid breccia, quartzite cemented with silica, Feox.
238	Quad: Cobre SE Sec: 9 T: 37N R: 68E UTM: 4553080 N 0727700 E	Dump, vein quartz, tetrahedrite, Cuox.
	Quad: Sec: T: R: UTM: N E	

Sample Description

Sample Number	Location	Description
239	Quad: Cobre SE Sec: 8 T: 37N R: 68E UTM: 4553540 N 0726980 E	Dump, vein quartz with tetrahedrite Cuox staining.
240	Quad: Miners Canyon Sec: 20 T: 36 R: 70 UTM: 9540900 N 0746150 E	Dump, gossan
241	Quad: Silver Zone Pass Sec: 16 T: 35N R: 68E UTM: 4532400 N 0727160 E	Grab from pit, quartz vein material
242	Quad: Silver Zone Pass Sec: 8 T: 35N R: 68E UTM: 4533360 N 0727010 E	Dump, vein quartz, hematite after pyrite, Cuox stain.
243	Quad: Silver Zone Pass Sec: 9 T: 35N R: 68E UTM: 4533680 N 0727320 E	Dump, vein quartz, Feox stain.
245	Quad: Dairy Valley Sec: 11 T: 43N R: 68E UTM: 4612880 N 0731600 E	Dump, gossan, skarn material, with quartz veining
247	Quad: Texas Springs Sec: 15 T: 44N R: 65E UTM: 4619250 N 0699790 E	Grab sample, altered skarn, green opalized material, some jasperoid and gossan.
248	Quad: Twelvemile Ranch Sec: 28 T: 41N R: 69E UTM: 4588310 N 0738340 E	Dump, gossan material.
249	Quad: Twelvemile Ranch Sec: 28 T: 41N R: 69E UTM: 4588310 N 0738340 E	Dump, barite-rich material.

Sample Description

Sample Number	Location	Description
250	Quad: Snow Water Lake NE Sec: 7 T: 35N R: 64E UTM: 4533870 N 068600 E	Dump, gossanous jasperoid with chunks mariposite mica.
252	Quad: Snow Water Lake NE Sec: 6 T: 35N R: 64E UTM: 4534840 N 0686770 E	Dump, quartz vein material with calcite, Feox, Tetrahedrite, Cuox, pyrite, chalcopyrite, epidote, chlorite.
253	Quad: Franklin Lake 1 SW Sec: T: R: UTM: 4462410 N 0657390 E	Dump, gossan, jasperoid from pod along bedding, white barite veinlets MnO.
254	Quad: Franklin Lake 1 SW Sec: T: R: UTM: 4463430 N 0656560 E	Dump, gossan, with MnO.
255	Quad: Franklin Lake 1 SW Sec: 24, 23 T: 28N R: 60E UTM: 4462880 N 0656040 E	Dump, gossan with hand-picked galena, barite.
256	Quad: Franklin Lake 1 SW Sec: T: R: UTM: 4460200 N 0654460 E	Dump, gossan material with galena, cerussite, Feox, MnO.
257	Quad: Franklin Lake SW Sec: 18 T: 28N R: 58E UTM: 4463150 N 0629570 E	Dump, grab (not analysed)
258A	Quad: Unknown Sec: T: R: UTM: N E	Sample mis-identified, location unknown
258B	Quad: Ferguson Springs 3NE Sec: T: R: UTM: 4458350 N 0730040 E	Goab, fault zone, silicified shale

Sample Description

Sample Number	Location	Description
259	Quad: Ferguson Spring 3 NE Sec: T: R: UTM: 4458420 N 0730890 E	Dump, jasperoid and gossan in breccia, MnO, calcite veinlets.
260	Quad: Currie 1 NE Sec: T: R: UTM: 4473400 N 0707120 E	Grab sample from dump, feldspathic granite, Cuox, Feox, pyrite, chalcopyrite, bornite, calcite, quartz.
262	Quad: Ferguson Springs 2 SW Sec: T: R: UTM: 4465020 N 0714890 E	Dump sample, jasperoid breccia.
263	Quad: Ferguson Springs 2 SW Sec: T: R: UTM: 4465020 N 0714890 E	Dump sample, siliceous gossan. Feox, MnO
265	Quad: Jarbidge Sec: 16 T: 46N R: 58E UTM: 4636880 N 0630420 E	Dump, vein material.
266	Quad: Jarbidge Sec: 16 T: 46N R: 58E UTM: 4636880 N 0630420 E	Dump, vein material.
301	Quad: Henry Sec: 3 T: 44N R: 63E UTM: 4621950 N 0620540 E	Dump, ore Cuox, Feox
302	Quad: Henry Sec: 3 T: 44N R: 63E UTM: 4621890 N 0680540 E	Dump, ore Cuox, Feox.
303	Quad: Henry Sec: 3 T: 44N R: 63E UTM: 4621380 N 0681150 E	Dump - garnet skarn, Mnox, Cuox and Feox stain.

Sample Description

Sample Number	Location	Description
304	Quad: Henry Sec: 3 T: 44N R: 63E UTM: 4621970 N 0681330 E	Dump, granodiorite, Feox, MnO, Cuox staining.
305	Quad: Contact Sec: 28 T: 45N R: 63E UTM: 4624180 N 0679300 E	Dump, ore, granodiorite with Cuox minerals.
306	Quad: Contact Sec: 28 T: 45N R: 63# UTM: 4624460 N 0679140 E	Dump, ore, Cuox and Feox minerals, pyrite, chalcopyrite from fault in granodiorite.
307	Quad: Contact Sec: 21 T: 45N R: 63E UTM: 4626640 N 0678540 E	Dump, granodiorite, silicified limestone, CuOx.
308	Quad: Contact Sec: 21 T: 45N R: 63E UTM: 4626830 N 0678910 E	Dump, granodiorite.
309	Quad: Contact Sec: 21 T: 45N R: 63E UTM: 4626530 N 0678710 E	Dump, vein quartz, Cuox.
312	Quad: Henry Sec: 36 T: 45N R: 63E UTM: 4623880 N 0683880 E	Chip sample, 4' wide, across limonite zone in granodiorite.
313	Quad: Henry Sec: 36 T: 45N R: 63E UTM: 4623170 N 0683140 E	Grab, QE, monzonite with Cuox, Feox.
314	Quad: Blanchard Mt. Sec: 4 T: 44N R: 64E UTM: 4622220 N 0688770 E	Chip, 3.8' across Cuox-stained granodiorite-joint system N-S, dip 60°W.

Sample Description

Sample Number	Location	Description
315	Quad: Blanchard Mtn. Sec: 16 T: 44N R: 64E UTM: 4618060 N 0688640 E	Dump, Cuox, stained QE monzonite.
316A	Quad: Blanchard Mt. Sec: 16 T: 44N R: 64E UTM: 4618060 N 0688640 E	Dump, skarn
316B	Quad: Blanchard Mt. Sec: 16 T: 44N R: 64E UTM: 4618060 N 0688640 E	Dump, limonite and vein quartz.
317	Quad: Silver Zone Sec: 9 T: 35N R: 68E UTM: 4534040 N 0727080 E	Grab, vein quartz.
318A	Quad: Silver Zone Pass Sec: 21 T: 35N R: 68E UTM: 4530350 N 0728150 E	Vein material.
318B	Quad: Silver Zone Pass Sec: 21 T: 35N R: 68E UTM: 4530350 N 0728150 E	Carbonate infilling and siliceous to country rock.
319	Quad: Ferguson Mt. 7 1/2 Sec: 33 T: 30N R: 69E UTM: 4479290 N 0738840 E	Dump, "ore", silicified limestone, gossan, limonite, calcite, quartz.
321	Quad: Ferguson Mt. Sec: 33 T: 30N R: 69E UTM: 4478600 N 0737600 E	Grab, dump, "ore" from main dump, limonite, quartz, calcite, minor Cuox.
324	Quad: White Horse Pass 7 1/2 Sec: 34 T: 29N R: 69E UTM: 4469610 N 0740780 E	Dump, vein material, quartz, Cuox minerals.

Sample Description

Sample Number	Location	Description
325	Quad: White Horse Pass 7 1/2 Sec: 34 T: 29N R: 69E UTM: 4469840 N 0739950 E	Dump, vein material.
328	Quad: Ferguson Mt. 7 1/2 Sec: 17 T: 29N R: 69E UTM: 4473170 N 0736670 E	Dump, vein, quartz with Feox and Cuox stain.
329	Quad: Ferguson Mt. Sec: 3 T: 29N R: 69E UTM: 4477050 N 0739290 E	Dump, limonite, quartz, calcite, Cuox.
331	Quad: Ferguson Mt. Sec: 29 T: 30N R: 69E UTM: 4481050 N 0737030 E	Dump, "ore", limonite, quartz with Cuox staining.
332	Quad: Ferguson Mt. Sec: 21 T: 30N R: 69E UTM: 4482450 N 0738810 E	Dump, "ore", limonite, Cuox in limestone.
333	Quad: Ferguson Flat Sec: 18 T: 30N R: 70E UTM: 4484550 N 0743870 E	Dump, "ore" gossan material.
334	Quad: Ferguson Flat Sec: 29 T: 30N R: 70E UTM: 4481120 N 0746580 E	Dump, "ore", limonite, quartz.
335	Quad: Ferguson Flat Sec: 28 T: 30N R: 70E UTM: 4480550 N 0747800 E	Dump, "ore", limonite.
336	Quad: Ferguson Mt. Sec: 25 T: 30N R: 69E UTM: 4481100 N 0743500 E	Dump, "ore", limonite, barite crystals.

Sample Description

Sample Number	Location	Description
338	Quad: Miners Canyon Sec: 20 T: 36N R: 70E UTM: 4541370 N 0746340 E	Chip sample, granite from adit.
339	Quad: Miners Canyon Sec: 20 T: 36N R: 70E UTM: 4541270 N 0746370 E	Dump, vein material, Cuox
340	Quad: Miners Canyon Sec: 20 T: 36N R: 70E UTM: 4541320 N 0745900 E	Dump, intrusive of pyrite.
341	Quad: Miners Canyon Sec: 20 T: 36N R: 70E UTM: 4541330 N 0746110 E	Dump, vein quartz, Cuox, tetrahedrite.
342	Quad: Miners Canyon Sec: 20 T: 36N R: 70E UTM: 4540880 N 0746240 E	Dump, limonite in silicated limestone.
343	Quad: Miners Canyon Sec: 30 T: 36N R: 69E UTM: 453990 N 0744900 E	Dump, vein quartz, some galena, copper.
344	Quad: Miners Canyon Sec: 30 T: 36N R: 69E UTM: 4539870 N 0744890 E	Siliceous, fractured country rock, minor pyrite, galena.
347	Quad: Morgan Pass Sec: 6 T: 32N R: 68E UTM: 4506270 N 0725010 E	Dump, "ore".
349	Quad: Ferguson Springs 2 SE Sec: T: R: UTM: 4462080 N 0731360 E	Dump, garnet (skarn)

Sample Description

Sample Number	Location	Description
350	Quad: Ferguson Springs 3 NE Sec: T: R: UTM: 4458350 N 0730040 E	Dump, "ore", jasperoid.
351	Quad: Franklin Lake 1 SW Sec: 23 T: 28N R: 60E UTM: 4462880 N 0656040 E	Dump, gossan material.
353	Quad: Currie 20W Orthophoto Sec: 2 T: 28N R: 62E UTM: 4466160 N 0613095 E	Dump, brecciated limestone.
	Quad: Sec: T: R: UTM: N E	
	Quad: Sec: T: R: UTM: N E	
	Quad: Sec: T: R: UTM: N E	
	Quad: Sec: T: R: UTM: N E	
	Quad: Sec: T: R: UTM: N E	
	Quad: Sec: T: R: UTM: N E	

Sample Description

Sample Number	Location	Description
501	Quad: Wine Cup Ranch SW 7 1/2' Sec: 10 T: 39N R: 64E UTM: 4572350 N 0691070 E Dig Property	Barite vein in dolomite.
502	Quad: Independence Valley NE 7 1/2' Sec: 14 T: 35N R: 65E UTM: 4531100 N 0702380 E Thunder Head Property	Barite vein in dolomite.
510	Quad: Marys River Basin NW 7 1/2' Sec: 1 T: 44N R: 57E UTM: 4621080 N 0625890 E Badger Property	Barite vein.
515	Quad: Boies Reservoir 7 1/2' Sec: 7 T: 42N R: 62E UTM: 4600150 N 0668000 E Jungle Mine	Bedded barite.
521	Quad: Stormy Peak 7 1/2' Sec: 27 T: 42N R: 61E UTM: 4596550 N 0661500 E Stormy Creek Mine	Bedded barite.
	Quad: Sec: T: R: UTM: N E	
	Quad: Sec: T: R: UTM: N E	
	Quad: Sec: T: R: UTM: N E	
	Quad: Sec: T: R: UTM: N E	
		added 26 F2385

Sample Description

Sample Number	Location	Description
558	Quad: Morgan Pass 7½' Sec: 12 T: 32N R: 67E UTM: 4504680 N 0724300 E Politch Claims Decoy District	Chip from 4 ft. wide fault zone, also includes select grab of iron-stained calcite from ridgeline in N part of claim block.
559	Quad: Morgan Pass 7½' Sec: 22 T: 32N R: 68E UTM: 4501180 N 0729890 E Prospect Pit Decoy District	Select grab at Prospect Pit. Thick-bedded grey limestone-sample of gossan & iron-stained limestone. Gossan/ iron-stained.
560	Quad: Morgan Pass 7½' Sec: 18 T: 32N R: 68E UTM: 4502000 N 0726300 E Derry Claims (N½) Decoy District	Traverse-rock chip-select grab, gossan and iron-stained calcite, silicification.
561	Quad: Morgan Pass 7½' Sec: 20 T: 32N R: 68E UTM: 4501760 N 0726740 E Derry Claims Decoy District	Select grab-drift, quartzite, quartz vein, limonite after pyrite.
562	Quad: Morgan Pass 7½' Sec: 20 T: 32N R: 68E UTM: 4501700 N 0726740 E Derry Claims Decoy District	Chip sample from outcrop, green altered volcanic rock, chlorite, hornblende; plagioclase.
563	Quad: Morgan Pass 7½' Sec: 10 T: 33N R: 68E UTM: 4514200 N 0730260 E Unknown Prospect Decoy District	Rock sligthly altered rhyolite, pyrolusite,(?) iron staining.
564	Quad: Morgan Pass 7½' Sec: 10 T: 33N R: 68E UTM: 4514200 N 0730260 E Unknown Prospect Decoy District	Sandstone, silicification.
565	Quad: West Morris Basin 7½' Sec: 34 T: 34N R: 68E UTM: 4517680 N 0730300 E Blackbird Claims Decoy District	Cryptocrystalline quartz, iron staining Boxworks.
566	Quad: West Morris Basin 7½' Sec: 35 T: 34N R: 68E UTM: 4517510 N 0731155 E Blackbird Claims Decoy District(?)	Crypotcrystalline quartz with boxwork, calcite veins, gossan, iron stain, pyrite casts.

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Sample Description

Sample Number	Location	Description
567	Quad: West Morris Basin 7½' Sec: 35 T: 34N R: 68E UTM: 4517680 N 0731120 E Blackbird Claims Decoy District(?)	Chip sample, fetid limestone (recrystallized).
568	Quad: West Morris Basin 7½' Sec: 35 T: 34N R: 68E UTM: 4517330 N 0731500 E Blackbird Claims Decoy District	Chip and drift, breccia zone in quartzite, cemented by calcite.
569	Quad: West Morris Basin 7 ½' Sec: 35 T: 34N R: 68E UTM: 4517410 N 0731580 E Blackbird Claims Decoy District(?)	Drift from wash, cryptocrystalline quartz, gossan & calcite breccia, iron staining.
570	Quad: Ferguson Mountain 7½' Sec: 29 T: 30N R: 69E UTM: 4481050 N 0737030 E FSW Claims Ferguson Spring District	Selected grab, dump, gossan, jasperoid
571	Quad: Ferguson Mountain 7½' Sec: 30 T: 30N R: 69E UTM: 4480410 N 0734800 E FSW Claims Ferguson Spring District	Chip and drift, silicified limestone and quartz vein, iron staining.
572	Quad: Ferguson Mountain 7½' Sec: 30 T: 30N R: 69E UTM: 4480520 N 0735340 E FSW Claims Ferguson Spring District	Drift, gossan and jasperoid breccia along contact of black shale & buff limestone.
573	Quad: Ferguson Mountain 7 ½' Sec: 30 T: 30N R: 69E UTM: 4480520 N 0735340 E FSW Claims Ferguson Spring District	Loose surface material-not transported far, black shale, silicification, iron staining.
574	Quad: Ferguson Mountain 7 ½' Sec: 30 T: 30N R: 69E UTM: 4479910 N 0734920 E FSW Claims Ferguson Spring District	Quartzite breccia zone -gossan and jasperoid.
575	Quad: Ferguson Mountain 7½' Sec: 7 T: 29N R: 69E UTM: 4474930 N 0735400 E Gem and Sleeper Claims Ferguson Spring District	Limestone, silicification, iron staini

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Semi-Quantitative Spectrographic Analysis

Element — Sample Number

		001	002	003	004	006	007	008	009
Fe %(.05)		.5	3	.7	1	10	20	10	20
Mg %(.02)		.7	.2	.05	.3	.15	.15	.1	.05
Ca %(.05)		5	3	L	.3	5	3	.07	.15
Ti %(.002)		.05	.2	.05	.2	.15	.015	.01	.05
Mn(10)		100	1000	20	20	150	1500	50	100
Ag(.5)		L	7	2	L	30	70	10	20
As(200)		N	200	N	N	2000	1000	1500	1500
Au(10)		N	N	N	N	N	N	N	N
B(10)		20	150	20	70	L	10	10	10
Ba(20)		200	1000	1000	200	G(5000)	300	1500	1500
Be(1)		1.5	2	1	1.5	L	N	N	L
Bi(10)		N	N	N	N	N	N	50	20
Cd(20)		N	N	N	N	50	100	N	N
Co(5)		N	30	N	N	L	N	L	N
Cr(10)		L	700	L	200	100	20	L	30
Cu(5)		5	150	7	5	700	2000	1000	200
La(20)		30	50	N	150	50	N	N	N
Mo(5)		N	5	N	N	30	7	10	20
Nb(20)		N	N	N	20	N	N	N	N
Ni(5)		L	150	20	20	15	5	10	5
Pb(10)		100	2000	20	10	20000	G(20000)	1000	20000
Sb(100)		N	N	N	N	1500	500	100	100
Sc(5)		N	15	L	10	7	N	L	N
Sn(10)		N	30	N	N	100	100	N	15
Sr(100)		200	L	N	150	1000	L	N	L
V(10)		10	200	50	50	70	1500	150	70
W(50)		N	N	N	N	N	N	50	N
Y(10)		15	20	N	10	15	N	N	N
Zn(200)		N	1000	N	N	2000	10000	2000	5000
Zr(10)		70	100	30	200	100	20	50	50
Th(100)		N	N	N	N	N	N	N	N

Analysis by Branch Exploration Research, U.S. Geol. Survey, Denver, Colorado
Fe, Mg, Ti reported in %, all other elements reported in ppm.
Lower limits of determination are in parentheses.
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Semi-Quantitative Spectrographic Analysis

Element		Sample Number							
		010	011	012	013	014	015	017	018
Fe %(.05)		7	15	1.5	20	10	20	1	1.5
Mg %(.02)		.05	.3	1	.2	5	.3	3	.02
Ca %(.05)		1	.5	.5	.5	15	3	5	.5
Ti %(.002)		.05	.003	.15	.01	.002	L	.003	.002
Mn(10)		300	100	70	100	500	50	700	100
Ag(.5)		50	200	3	1	.5	2	70	5
As(200)		N	2000	N	N	200	300	200	N
Au(10)		N	N	N	N	N	N	N	N
B(10)		15	10	10	N	N	15	L	10
Ba(20)		2000	70	1000	G(5000)	70	150	30	100
Be(1)		3	1	2	N	3	L	N	L
Bi(10)		20	50	N	N	N	N	N	N
Cd(20)		N	20	N	N	N	70	L	N
Co(5)		15	7	L	N	15	20	L	5
Cr(10)		10	L	10	N	N	20	N	N
Cu(5)		G(20000)	500	70	10	50	50	200	20
La(20)		30	20	20	N	N	N	N	20
Mo(5)		5	15	N	7	N	10	N	L
Nb(20)		N	N	N	N	N	N	N	N
Ni(5)		15	20	7	10	50	15	5	L
Pb(10)		300	G(20000)	300	1500	200	5000	1000	1500
Sb(100)		N	300	N	100	N	N	100	N
Sc(5)		L	N	5	N	N	N	N	N
Sn(10)		N	100	10	N	N	N	N	N
Sr(100)		150	100	200	100	100	L	100	L
V(10)		100	150	50	70	100	500	L	50
W(50)		200	N	N	N	N	N	N	N
Y(10)		10	L	15	L	L	N	L	L
Zn(200)		500	10000	N	7000	1000	G(10000)	1000	N
Zr(10)		300	10	150	N	N	20	N	N
Th(100)		N	N	N	N	N	N	N	N

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Semi-Quantitative Spectrographic Analysis

Element — Sample Number

	019	020	021	022	023	024	025	026	027
Fe %(.05)	15	20	.15	20	.2	7	7	.5	7
Mg %(.02)	.03	.07	.2	2	.15	.15	.02	.05	.3
Ca %(.05)	1	.1	.15	7	1	1.5	.1	.1	5
Ti %(.002)	L	.07	.07	.03	.05	.01	.03	.05	.1
Mn(10)	70	50	70	700	200	1500	300	50	700
Ag(.5)	100	300	5	200	1.5	150	50	15	3
As(200)	G(10000)	G(10000)	N	10000	N	5000	G(10000)	300	500
Au(10)	N	N	N	N	N	N	N	N	N
B(10)	L	20	20	N	10	N	10	15	100
Ba(20)	70	200	1000	1500	700	200	100	70	5000
Be(1)	2	L	7	N	3	1.5	L	1	1
Bi(10)	70	200	N	500	N	500	N	N	N
Cd(20)	200	150	N	200	N	500	20	N	100
Co(5)	N	L	N	20	N	15	L	N	5
Cr(10)	N	20	L	15	N	L	50	30	70
Cu(5)	5000	700	20	7000	150	3000	10000	20	300
La(20)	N	N	20	N	30	L	L	20	L
Mo(5)	50	7	N	30	N	N	200	10	300
Nb(20)	N	N	20	N	20	N	N	N	N
Ni(5)	5	10	N	30	N	N	20	L	100
Pb(10)	G(20000)	G(20000)	500	15000	100	15000	10000	150	5000
Sb(100)	500	700	N	500	N	500	2000	L	L
Sc(5)	N	5	5	L	5	L	L	N	5
Sn(10)	500	200	N	1000	L	200	N	N	N
Sr(100)	150	L	150	100	200	L	N	N	200
V(10)	15	20	L	15	L	L	50	30	200
W(50)	100	N	N	N	N	50	N	N	L
Y(10)	N	10	20	L	15	10	10	L	15
Zn(200)	10000	7000	N	G(10000)	N	G(10000)	G(10000)	N	G(10000)
Zr(10)	10	150	70	20	50	30	50	70	200
Th(100)	N	N	N	N	N	N	N	N	N

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Fe, Mg, Ti reported in %, all other elements reported in ppm.
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Semi-Quantitative Spectrographic Analysis

Element — Sample Number

	028	030	032	034	036	037	040	041	042
Fe %(.05)	1	.7	7	.7	1.5	10	3	15	1
Mg %(.02)	.07	.3	3	5	5	.7	.7	.05	.2
Ca %(.05)	.2	.1	5	15	10	5	1	.2	.05
Ti %(.002)	.02	.05	.2	L	.07	.05	.15	.02	.07
Mn(10)	10	20	200	300	300	2000	70	150	10
Ag(.5)	20	1.5	N	N	L	10	L	L	N
As(200)	200	N	N	N	N	200	N	1000	N
Au(10)	N	N	N	N	N	N	N	N	N
B(10)	20	50	L	N	N	70	500	30	500
Ba(20)	2000	3000	300	50	2000	70	500	30	500
Be(1)	1	3	L	N	N	2	2	3	1.5
Bi(10)	L	N	N	N	N	1000	N	L	N
Cd(20)	L	N	N	N	N	N	N	N	N
Co(5)	N	N	50	L	5	200	5	N	N
Cr(10)	10	N	100	N	N	70	L	100	N
Cu(5)	2000	15	70	7	10	G(20000)	30	150	5
La(20)	N	20	100	N	N	N	50	N	100
Mo(5)	10	10	5	N	N	10	N	5	N
Nb(20)	N	N	N	N	N	N	N	L	N
Ni(5)	10	10	200	L	20	100	7	10	N
Pb(10)	3000	50	50	30	50	100	20	10	10
Sb(100)	100	N	N	N	N	1000	N	N	N
Sc(5)	L	N	10	N	5	L	L	N	5
Sn(10)	100	N	N	N	N	N	N	N	N
Sr(100)	150	150	L	150	100	200	100	100	200
V(10)	150	10	100	L	30	150	20	50	L
W(50)	N	N	N	N	N	50	N	N	N
Y(10)	20	10	20	N	10	10	15	L	15
Zn(200)	500	300	N	N	N	200	N	N	N
Zr(10)	15	70	500	L	30	30	200	15	100
Th(100)	N	N	N	N	N	N	N	N	N

Analysis by Branch Exploration Research, U.S. Geol. Survey, Denver, Colorado
Fe, Mg, Ti reported in %, all other elements reported in ppm.
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Semi-Quantitative Spectrographic Analysis

Element — Sample Number

	043	044	045	046	047	049	050	052	054
Fe %(.05)	15	2	5	3	1	30	5	20	20
Mg %(.02)	.03	.05	1	5	.2	.2	2	.2	1
Ca %(.05)	L	.3	10	7	.05	.2	10	1	10
Ti %(.002)	.005	.02	.07	.07	N	.002	.003	.005	.03
Mn(10)	2000	2000	G(5000)	1500	700	2000	3000	200	3000
Ag(.5)	50	700	N	50	3	10	300	300	N
As(200)	1000	N	N	N	N	500	N	B(10000)	N
Au(10)	N	N	N	N	N	N	N	N	N
B(10)	10	10	10	L	L	20	100	20	N
Ba(20)	G(5000)	G(5000)	50	200	1000	G(5000)	20	70	20
Be(1)	5	1	100	2	2	L	N	L	1
Bi(10)	N	N	200	100	N	150	G(1000)	G(1000)	N
Cd(20)	N	20	N	100	500	N	100	150	N
Co(5)	L	N	5	20	20	N	100	20	15
Cr(10)	15	15	10	N	N	30	15	20	N
Cu(5)	150	150	5	1000	150	1500	G(20000)	15000	100
La(20)	N	L	N	N	N	N	N	N	N
Mo(5)	20	N	300	N	N	15	N	15	50
Nb(20)	N	N	N	N	N	N	N	N	N
Ni(5)	30	N	5	15	7	10	50	10	15
Pb(10)	15000	G(20000)	30	G(20000)	7000	70	200	G(20000)	50
Sb(100)	1000	500	N	N	N	70	N	500	N
Sc(5)	L	N	5	L	N	N	N	N	N
Sn(10)	N	N	300	N	N	10	50	100	100
Sr(100)	700	2000	L	L	N	3000	150	150	N
V(10)	30	10	150	20	L	20	20	500	100
W(50)	70	N	1000	N	N	N	N	N	150
Y(10)	L	L	10	L	N	10	N	L	L
Zn(200)	10000	G(10000)	200	G(10000)	G(10000)	N	7000	10000	N
Zr(10)	L	50	20	20	N	N	20	20	15
Th(100)	N	N	N	N	N	N	N	N	N

Analysis by Branch Exploration Research, U.S. Geol. Survey, Denver, Colorado
Fe, Mg, Ti reported in %, all other elements reported in ppm.
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Semi-Quantitative Spectrographic Analysis

Element	Sample Number								
	056								
Fe % (.05)	2								
Mg % (.02)	.2								
Ca % (.05)	.2								
Ti % (.002)	.2								
Mn (10)	50								
Ag (.5)	2								
As (200)	N								
Au (10)	N								
B (10)	50								
Ba (20)	1000								
Be (1)	2								
Bi (10)	N								
Cd (20)	N								
Co (5)	30								
Cr (10)	20								
Cu (5)	15000								
La (20)	100								
Mo (5)	5								
Nb (20)	50								
Ni (5)	15								
Pb (10)	20								
Sb (100)	N								
Sc (5)	5								
Sn (10)	L								
Sr (100)	200								
V (10)	70								
W (50)	50								
Y (10)	30								
Zn (200)	N								
Zr (10)	300								
Th (100)	N								

Analysis by Branch Exploration Research, U.S. Geol. Survey, Denver, Colorado
Fe, Mg, Ti reported in %, all other elements reported in ppm.
Lower limits of determination are in parentheses.
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Semi-Quantitative Spectrographic Analysis

Element — Sample Number

	057	058	059	060	061	062	063	064	066
Fe %(.05)	15	.7	20	15	15	2	5	20	2
Mg %(.02)	.15	1.5	.2	.07	.2	1	2	.15	.1
Ca %(.05)	.2	.3	.2	.7	10	1.5	10	.1	.15
Ti %(.002)	.03	.2	.003	.05	.1	.2	.2	.002	.02
Mn(10)	70	50	50	30	1000	300	3000	70	100
Ag(.5)	50	N	10	L	N	N	15	500	20
As(200)	N	N	N	500	N	N	N	2000	N
Au(10)	N	N	N	N	N	N	N	N	N
B(10)	20	10	50	20	L	L	10	L	L
Ba(20)	3000	70	100	70	100	1000	30	30	150
Be(1)	2	1.5	5	5	1	2	3	N	7
Bi(10)	G(1000)	N	1000	700	N	N	500	500	30
Cd(20)	N	N	N	N	N	N	N	70	N
Co(5)	70	N	100	10	N	7	15	N	L
Cr(10)	10	30	20	20	30	10	N	N	N
Cu(5)	G(20000)	150	G(20000)	200	50	20	3000	1000	5000
La(20)	N	150	20	150	20	150	150	N	N
Mo(5)	10	N	20	70	N	N	700	15	30
Nb(20)	N	50	N	L	N	L	N	N	N
Ni(5)	50	10	30	7	5	5	5	N	N
Pb(10)	150	20	50	15	50	50	70	20000	70
Sb(100)	N	N	N	N	N	N	N	1000	L
Sc(5)	L	7	N	N	L	7	7	N	N
Sn(10)	N	N	N	N	N	N	50	50	10
Sr(100)	100	100	L	L	L	500	150	N	L
V(10)	300	70	200	50	20	50	70	20	50
W(50)	N	N	50	L	L	N	100	N	50
Y(10)	L	30	20	10	15	20	20	N	N
Zn(200)	N	N	200	N	N	N	N	10000	200
Zr(10)	N	200	20	200	70	150	150	N	100
Th(100)	N	N	N	N	N	N	N	N	N

Analysis by Branch Exploration Research, U.S. Geol. Survey, Denver, Colorado
Fe, Mg, Ti reported in %, all other elements reported in ppm.
Lower limits of determination are in parentheses.
G = greater than value shown, N = not detected at limit of detection, < detected, but below value shown.

Semi-Quantitative Spectrographic Analysis

Element		Sample Number							
		067	068	070	072	073	074	075	075S
Fe %(.05)		15	15	10	10	15	3	15	7
Mg %(.02)		2	.15	.07	1	.2	5	.2	1
Ca %(.05)		3	.7	1.5	3	5	10	.1	10
Ti %(.002)		.03	.01	.02	.1	.003	L	.03	.2
Mn(10)		300	700	1000	200	2000	2000	50	2000
Ag(.5)		70	200	100	7	200	150	500	100
As(200)		1000	1000	10000	N	3000	700	1500	3000
Au(10)		N	N	N	N	N	N	N	N
B(10)		10	10	15	500	20	20	70	10
Ba(20)		300	300	70	500	70	N	100	500
Be(1)		2	1.5	7	2	N	N	N	L
Bi(10)		20	G(1000)	100	15	100	G(1000)	200	20
Cd(20)		200	150	20	N	200	100	20	200
Co(5)		N	70	70	7	5	N	N	10
Cr(10)		L	N	N	50	50	N	N	50
Cu(5)		1000	G(20000)	20000	200	2000	G(20000)	300	3000
La(20)		N	N	N	50	100	N	30	N
Mo(5)		20	50	30	N	15	N	30	N
Nb(20)		N	N	N	N	N	N	N	N
Ni(5)		15	10	20	20	10	L	L	15
Pb(10)		G(20000)	10000	200	500	5000	500	G(20000)	15000
Sb(100)		100	1000	500	N	5000	5000	700	700
Sc(5)		N	N	N	5	N	N	N	5
Sn(10)		N	15	15	N	N	20	10	N
Sr(100)		L	N	N	100	150	100	N	100
V(10)		10	10	20	20	30	15	L	20
W(50)		N	N	300	N	50	N	N	N
Y(10)		L	15	10	15	30	10	N	30
Zn(200)		10000	10000	2000	700	7000	1000	5000	G(10000)
Zr(10)		30	20	10	150	30	N	30	500
Th(100)		N	N	N	N	N	N	N	N

Analysis by Branch Exploration Research, U.S. Geol. Survey, Denver, Colorado
Fe, Mg, Ti reported in %, all other elements reported in ppm.
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Semi-Quantitative Spectrographic Analysis

Element — Sample Number

	076	078	082	083	084	085	086	087	088
Fe %(.05)	7	G(20)	.7	.5	2	.2	.2	7	1.5
Mg %(.02)	.3	1.5	.02	.02	.05	.03	L	1.5	.7
Ca %(.05)	10	2	.05	.05	.1	L	5	10	5
Ti %(.002)	.15	.005	.07	.05	.1	.05	.03	.2	.1
Mn(10)	1000	500	500	500	20	100	30	3000	1000
Ag(.5)	1.5	.5	20	10	.7	100	5	N	5
As(200)	N	N	N	N	N	N	N	N	N
Au(10)	N	N	N	N	N	N	N	N	N
B(10)	L	N	15	15	20	15	15	N	20
Ba(20)	700	100	300	300	500	300	300	30	1000
Be(1)	L	N	50	7	1.5	7	5	1	L
Bi(10)	N	N	N	N	N	N	N	N	N
Cd(20)	N	N	N	N	N	N	N	N	N
Co(5)	5	70	N	N	N	N	N	N	15
Cr(10)	N	L	N	N	N	N	N	70	100
Cu(5)	100	150	20	15	20	7	5	50	700
La(20)	70	N	70	70	50	50	30	30	N
Mo(5)	N	N	N	7	5	5	N	1000	N
Nb(20)	70	N	N	N	L	N	N	N	N
Ni(5)	N	N	N	N	5	N	N	30	50
Pb(10)	50	100	50	30	10	10	10	50	50
Sb(100)	N	N	N	N	N	N	N	N	N
Sc(5)	5	N	N	N	5	N	N	10	5
Sn(10)	10	20	N	N	N	N	N	20	N
Sr(100)	200	L	N	N	L	N	N	L	100
V(10)	15	15	L	L	L	L	L	70	30
W(50)	N	N	N	N	N	N	N	50	N
Y(10)	20	L	30	15	30	20	15	20	L
Zn(200)	N	N	N	N	N	N	N	L	N
Zr(10)	50	30	300	150	300	100	150	70	50
Th(100)	N	N	N	N	N	N	N	N	N

Analysis by Branch Exploration Research, U.S. Geol. Survey, Denver, Colorado
Fe, Mg, Ti reported in %, all other elements reported in ppm.
Lower limits of determination are in parentheses.
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Semi-Quantitative Spectrographic Analysis

Element — Sample Number

	089	090	091	092	093	094	095	096	097
Fe %(.05)	.5	1.5	1.5	G(20)	G(20)	G(20)	2	G(20)	7
Mg %(.02)	1	.7	.5	.7	1	.5	.7	.3	.05
Ca %(.05)	20	15	1.5	1	3	1.5	5	.5	.2
Ti %(.002)	.015	.07	.1	.005	.007	.002	.005	.02	.02
Mn(10)	200	G(5000)	500	5000	700	2000	G(5000)	300	700
Ag(.5)	L	N	N	70	100	N	100	.5	L
As(200)	N	N	N	1000	2000	N	200	700	N
Au(10)	N	N	N	N	N	N	N	N	N
B(10)	10	20	L	10	L	10	10	20	20
Ba(20)	50	700	1000	1000	700	2000	G(5000)	200	G(5000)
Be(1)	N	N	1	L	2	1	3	L	2
Bi(10)	N	N	N	50	N	N	N	N	N
Cd(20)	N	N	N	300	30	30	N	N	N
Co(5)	N	L	L	N	N	10	200	50	N
Cr(10)	30	20	L	N	50	L	N	20	30
Cu(5)	7	7	30	2000	1000	30	7	150	70
La(20)	N	20	L	N	50	N	150	20	N
Mo(5)	N	N	N	30	150	10	70	15	10
Nb(20)	N	N	N	N	N	N	N	N	N
Ni(5)	L	10	5	7	20	30	30	70	100
Pb(10)	30	20	50	5000	15000	1500	100	70	10
Sb(100)	N	N	N	L	150	N	N	L	N
Sc(5)	N	5	5	N	N	N	N	N	N
Sn(10)	N	N	N	N	1000	N	N	N	N
Sr(100)	1500	2000	200	N	150	L	1000	L	1500
V(10)	10	15	20	10	500	200	200	700	200
W(50)	N	N	N	N	N	N	L	50	N
Y(10)	10	15	10	N	N	N	N	20	10
Zn(200)	N	N	N	G(10000)	10000	G(10000)	500	200	10000
Zr(10)	15	30	100	N	30	N	N	30	20
Th(100)	N	N	N	N	N	N	N	N	N

Analysis by Branch Exploration Research, U.S. Geol. Survey, Denver, Colorado
Fe, Mg, Ti reported in %, all other elements reported in ppm.
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Semi-Quantitative Spectrographic Analysis

Element — Sample Number

	101	102	103A	103B	104A	104B	105	106	107
Fe %(.05)	.5	15	1.5	.2	.1	10	15	.7	3
Mg %(.02)	1.5	1.5	1	5	2	1.5	1	.07	.07
Ca %(.05)	2	7	1.5	10	3	5	7	.3	1.5
Ti %(.002)	.002	.02	.007	L	.002	.01	.07	.03	.2
Mn(10)	200	300	150	300	70	300	5000	200	500
Ag(.5)	5	.5	5	3	N	1.5	20	N	N
As(200)	N	N	N	N	N	N	N	N	N
Au(10)	N	N	N	N	N	N	N	N	N
B(10)	30	N	15	N	N	L	L	20	10
Ba(20)	G(5000)	1000	2000	1500	G(5000)	2000	30	100	700
Be(1)	L	L	1	N	N	1	1	5	3
Bi(10)	N	N	N	N	N	N	N	N	N
Cd(20)	G(5000)	N	50	30	20	500	N	N	N
Co(5)	N	5	N	N	N	N	20	N	7
Cr(10)	L	15	N	N	N	L	10	N	30
Cu(5)	50	15	30	10	5	20	3000	10	10
La(20)	N	N	N	N	N	N	N	30	50
Mo(5)	N	7	5	N	N	5	150	5	N
Nb(20)	N	N	N	N	N	N	N	50	N
Ni(5)	L	20	5	N	N	10	15	N	10
Pb(10)	5000	300	G(20000)	200	150	1500	30	50	30
Sb(100)	N	N	N	N	N	N	N	N	N
Sc(5)	N	N	N	N	N	N	L	5	7
Sn(10)	N	N	N	N	N	N	20	N	N
Sr(100)	500	N	L	100	5000	N	N	L	1000
V(10)	L	15	150	L	L	15	200	L	70
W(50)	N	N	N	N	N	N	700	N	N
Y(10)	L	N	N	N	N	N	20	20	15
Zn(200)	G(10000)	2000	G(10000)	G(10000)	1000	G(10000)	200	N	N
Zr(10)	N	30	20	N	N	20	20	100	300
Th(100)	N	N	N	N	N	N	N	N	N

Analysis by Branch Exploration Research, U.S. Geol. Survey, Denver, Colorado
Fe, Mg, Ti reported in %, all other elements reported in ppm.
Lower limits of determination are in parentheses.
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Semi-Quantitative Spectrographic Analysis

Element — Sample Number

	109	110	111	112	113				
Fe % (.05)	3	15	2	20	20				
Mg % (.02)	1	1	.02	.2	.3				
Ca % (.05)	1.5	15	.1	.1	5				
Ti % (.002)	.2	.07	.1	.002	.02				
Mn (10)	500	2000	15	5000	300				
Ag (.5)	N	N	N	.7	1.5				
As (200)	N	N	200	200	N				
Au (10)	N	N	N	N	N				
B (10)	10	L	10	10	L				
Ba (20)	1000	20	50	700	200				
Be (1)	2	N	1	N	N				
Bi (10)	N	N	N	N	N				
Cd (20)	N	N	N	N	N				
Co (5)	10	10	N	10	N				
Cr (10)	10	15	20	L	L				
Cu (5)	50	200	30	100	50				
La (20)	30	N	20	N	N				
Mo (5)	N	15	N	7	N				
Nb (20)	N	N	30	N	N				
Ni (5)	10	10	N	70	10				
Pb (10)	20	10	10	5000	1500				
Sb (100)	N	N	N	N	N				
Sc (5)	7	L	L	N	N				
Sn (10)	N	30	N	N	N				
Sr (100)	1500	100	N	N	N				
V (10)	70	200	30	300	50				
W (50)	N	70	N	N	N				
Y (10)	15	20	15	10	L				
Zn (200)	200	N	N	3000	5000				
Zr (10)	100	30	150	15	20				
Th (100)	N	N	N	N	N				

Analysis by Branch Exploration Research, U.S. Geol. Survey, Denver, Colorado
Fe, Mg, Ti reported in %, all other elements reported in ppm.
Lower limits of determination are in parentheses.
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Semi-Quantitative Spectrographic Analysis

Element	Sample Number								
	201	202	203	204	206	207A	207B	208	210
Fe %(.05)	1	3	ANALYSIS NOT AVAILABLE AT THIS TIME	15	10	15	15	10	3
Mg %(.02)	.05	.05		.1	.15	.05	.2	.03	.03
Ca %(.05)	.5	.3		.2	.2	.07	.07	L	.2
Ti %(.002)	.1	.15		.01	1	L	.07	.015	.002
Mn(10)	30	300		2000	1000	1000	100	50	70
Ag(.5)	N	1		500	50	30	70	30	50
As(200)	N	N		200	N	700	N	200	200
Au(10)	N	N		N	N	N	N	N	N
B(10)	15	10		15	20	20	30	10	L
Ba(20)	500	500		200	30	20	70	50	50
Be(1)	5	5		1	1	7	1.5	L	L
Bi(10)	N	N		30	N	300	300	100	200
Cd(20)	N	N		150	200	L	30	N	N
Co(5)	N	N		5	N	10	5	N	N
Cr(10)	N	N		70	30	10	20	N	N
Cu(5)	N	50		2000	700	2000	3000	1000	100
La(20)	200	200		70	50	N	30	N	N
Mo(5)	5	7		20	10	10	10	5	L
Nb(20)	50	50		N	N	N	N	N	N
Ni(5)	10	5		20	20	70	100	7	15
Pb(10)	70	300		20000	2000	3000	500	1500	200
Sb(100)	N	N		5000	500	1500	100	1500	700
Sc(5)	5	5		N	L	5	N	N	N
Sn(10)	L	10		1000	100	300	G(1000)	700	N
Sr(100)	100	100		L	L	N	N	N	N
V(10)	L	L		100	15	500	500	10	100
W(50)	N	N		N	N	200	N	N	L
Y(10)	30	70		50	50	30	15	N	10
Zn(200)	N	N		10000	G(10000)	10000	7000	5000	1500
Zr(10)	500	200		70	300	10	300	70	20
Th(100)	N	N		N	N	N	N	N	N

Analysis by Branch Exploration Research, U.S. Geol. Survey, Denver, Colorado
Fe, Mg, Ti reported in %, all other elements reported in ppm.
Lower limits of determination are in parentheses.
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Semi-Quantitative Spectrographic Analysis

Element	Sample Number								
	211	212	213	214	215	216A	216B	217	220
Fe %(.05)	2	5	3	7	.5	15	7	1	.3
Mg %(.02)	.1	.3	.5	.1	.7	.05	.05	.5	.15
Ca %(.05)	1	.15	.2	.2	15	10	2	.2	.3
Ti %(.002)	.05	.1	.3	.1	.01	.015	.01	.2	.15
Mn(10)	200	150	150	500	100	500	500	200	50
Ag(.5)	500	2	.5	20	.5	15	20	N	N
As(200)	L	N	N	N	N	N	N	N	N
Au(10)	N	N	N	N	N	N	N	N	N
B(10)	20	100	20	30	15	10	10	20	10
Ba(20)	300	700	20	700	L	200	300	150	70
Be(1)	L	1	1.5	2	2	1	5	L	N
Bi(10)	10	N	N	10	N	100	150	N	N
Cd(20)	20	N	N	N	N	N	N	N	N
Co(5)	N	5	15	.15	15	10	10	N	N
Cr(10)	50	70	100	30	20	50	30	100	70
Cu(5)	1000	300	1500	G(20000)	G(20000)	G(20000)	10000	20	100
La(20)	N	N	70	50	N	20	N	50	100
Mo(5)	5	20	5	100	N	7	15	N	N
Nb(20)	N	N	50	20	N	N	N	20	20
Ni(5)	15	70	50	20	7	10	15	50	10
Pb(10)	G(20000)	50	20	20	15	200	10	10	10
Sb(100)	700	N	N	N	N	N	N	N	N
Sc(5)	N	7	10	5	N	N	N	10	5
Sn(10)	G(1000)	N	L	10	N	200	10	N	N
Sr(100)	200	N	150	150	150	N	N	200	700
V(10)	500	500	100	100	30	50	100	50	20
W(50)	N	N	N	50	N	50	100	N	N
Y(10)	15	15	15	10	10	20	10	10	30
Zn(200)	700	200	N	N	500	500	L	N	N
Zr(10)	70	70	200	30	50	20	15	150	200
Th(100)	N	N	N	N	N	N	N	N	N

Analysis by Branch Exploration Research, U.S. Geol. Survey, Denver, Colorado
Fe, Mg, Ti reported in %, all other elements reported in ppm.
Lower limits of determination are in parentheses.
G = greater than value shown, N = not detected at limit of detection, < detected, but below value shown.

Semi-Quantitative Spectrographic Analysis

Element	Sample Number								
	222	223	225	226	227	228	229	230	231
Fe %(.05)	10	1.5	20	2	10	1	7	2	.05
Mg %(.02)	.07	2	.1	.1	.07	.5	.5	.7	.05
Ca %(.05)	.1	.15	.15	.15	.3	.15	10	15	1.5
Ti %(.002)	.003	.1	.01	.1	.02	.2	.015	.15	.002
Mn(10)	50	200	100	150	50	10	300	300	15
Ag(.5)	1.5	5	500	1	30	3	L	.7	200
As(200)	500	N	300	N	1000	N	1000	N	700
Au(10)	N	N	N	N	N	N	N	N	N
B(10)	15	10	15	10	10	20	15	10	10
Ba(20)	150	30	1000	1000	200	700	G(5000)	20	50
Be(1)	3	1	L	7	L	1	L	L	L
Bi(10)	10	15	50	N	N	N	N	N	N
Cd(20)	N	N	N	N	N	N	N	N	N
Co(5)	7	10	70	N	N	N	15	L	N
Cr(10)	20	50	50	N	15	L	20	50	N
Cu(5)	G(20000)	100	G(20000)	100	300	20	30	20	5000
La(20)	30	30	N	50	20	50	20	30	N
Mo(5)	20	N	200	15	20	N	20	N	N
Nb(20)	N	N	N	20	N	L	N	N	N
Ni(5)	15	50	100	N	N	N	70	20	N
Pb(10)	1000	300	15	20	5000	50	15	300	1000
Sb(100)	2000	N	N	N	L	N	200	N	5000
Sc(5)	7	5	N	L	N	5	L	7	L
Sn(10)	N	N	50	N	N	N	N	N	N
Sr(100)	L	L	150	100	N	L	300	150	N
V(10)	500	20	30	20	30	70	50	150	L
W(50)	L	N	100	50	N	N	N	N	N
Y(10)	15	30	N	20	N	10	15	15	N
Zn(200)	L	N	N	N	1500	N	200	N	500
Zr(10)	N	200	N	300	100	100	15	150	N
Th(100)	N	N	N	N	N	N	N	N	N

Analysis by Branch Exploration Research, U.S. Geol. Survey, Denver, Colorado
Fe, Mg, Ti reported in %, all other elements reported in ppm.
Lower limits of determination are in parentheses.
G = greater than value shown, N = not detected at limit of detection, < detected, but below value shown.

Semi-Quantitative Spectrographic Analysis

Element — Sample Number

	232	233	234	235	236	237	238	239	240
Fe %(.05)	.5	2	10	2	3	7	.1	.07	G(20)
Mg %(.02)	.5	1	5	.5	.2	.1	3	.7	.5
Ca %(.05)	L	1	10	1	2	.5	7	1	.1
Ti %(.002)	.07	.15	.002	.1	.03	.1	.003	L	.1
Mn(10)	50	300	300	100	200	100	100	20	70
Ag(.5)	1.5	L	1	.7	70	15	7	150	.5
As(200)	N	N	2000	N	N	N	N	300	500
Au(10)	N	N	N	N	N	N	N	N	N
B(10)	50	10	L	15	20	70	10	10	50
Ba(20)	700	1000	30	1000	50	5000	L	30	150
Be(1)	1.5	1.5	N	2	1	1	L	L	1
Bi(10)	N	N	150	N	N	N	N	N	N
Cd(20)	N	N	N	N	70	N	30	50	20
Co(5)	N	7	70	L	N	L	N	N	30
Cr(10)	N	L	N	N	10	100	N	N	20
Cu(5)	15	20	10000	70	20	50	1500	2000	30
La(20)	20	30	N	50	N	20	N	20	N
Mo(5)	N	N	7	7	N	10	N	N	5
Nb(20)	L	N	N	N	N	N	N	N	N
Ni(5)	N	5	5	N	5	15	N	N	100
Pb(10)	50	50	15	50	G(20000)	150	200	1500	500
Sb(100)	N	N	N	N	N	N	N	2000	N
Sc(5)	L	5	N	5	L	5	L	N	L
Sn(10)	N	N	N	N	N	N	N	N	N
Sr(100)	N	300	100	100	500	200	L	N	N
V(10)	L	50	30	30	L	200	L	50	500
W(50)	N	N	L	N	N	N	N	N	N
Y(10)	10	15	N	15	N	15	N	N	10
Zn(200)	N	N	N	N	G(10000)	N	3000	1000	10000
Zr(10)	100	150	N	100	20	100	N	N	100
Th(100)	N	N	N	N	N	N	N	N	N

Analysis by Branch Exploration Research, U.S. Geol. Survey, Denver, Colorado
Fe, Mg, Ti reported in %, all other elements reported in ppm.
Lower limits of determination are in parentheses.
G = greater than value shown, N = not detected at limit of detection, < detected, but below value shown.

Semi-Quantitative Spectrographic Analysis

Element	Sample Number								
	241	242	243	245	247	248	249	250	252
Fe %(.05)	.5	1.5	.5	20	10	20	.15	.5	5
Mg %(.02)	.7	.05	.03	.07	.3	.2	L	2	.15
Ca %(.05)	20	.05	L	.15	10	.2	.02	2	3
Ti %(.002)	.05	.002	.005	.03	.05	.05	.005	G(1)	.03
Mn(10)	50	30	150	70	1000	50	.1	50	30
Ag(.5)	L	15	N	5	N	3	3	N	15
As(200)	N	N	N	N	N	N	N	N	1000
Au(10)	N	N	N	N	N	N	N	N	N
B(10)	N	20	10	L	10	50	N	50	20
Ba(20)	100	20	20	50	50	5000	G(5000)	2000	500
Be(1)	N	N	1.5	7	N	1.5	L	2	N
Bi(10)	N	N	N	20	N	N	N	N	20
Cd(20)	N	N	N	N	N	100	N	N	20
Co(5)	N	7	N	L	30	10	N	N	15
Cr(10)	N	N	N	30	20	50	10	1500	20
Cu(5)	10	20	5	100	100	150	10	10	20000
La(20)	50	N	N	N	20	20	N	500	N
Mo(5)	N	L	N	300	N	7	N	N	N
Nb(20)	N	N	N	N	N	N	N	50	N
Ni(5)	N	N	5	7	5	100	N	5	100
Pb(10)	20	5000	15	15	15	100	70	10	5000
Sb(100)	N	N	N	L	N	300	N	500	2000
Sc(5)	N	N	N	N	N	5	N	20	N
Sn(10)	N	N	N	50	50	N	N	15	N
Sr(100)	200	N	N	L	L	100	G(5000)	100	N
V(10)	L	150	L	150	20	200	10	200	300
W(50)	N	N	N	1500	N	N	N	N	N
Y(10)	30	N	N	N	20	N	N	30	L
Zn(200)	N	700	N	N	N	10000	N	N	2000
Zr(10)	50	N	N	30	30	30	10	1000	15
Th(100)	N	N	N	N	N	N	N	N	N

Analysis by Branch Exploration Research, U.S. Geol. Survey, Denver, Colorado
Fe, Mg, Ti reported in %, all other elements reported in ppm.
Lower limits of determination are in parentheses.
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Semi-Quantitative Spectrographic Analysis

Element	Sample Number								
	253	254	255	256	257	258A	258B	259	260
Fe %(.05)	10	2	2	10	ANALYSIS NOT AVAILABLE	.7	.2	20	5
Mg %(.02)	.05	.1	.07	.03		.02	.5	.1	.2
Ca %(.05)	.1	10	7	.15		.07	3	2	3
Ti %(.002)	.02	.015	.01	.02		.07	.15	.05	.05
Mn(10)	200	2000	1500	700		15	1000	300	500
Ag(.5)	70	200	100	150		N	70	1	10
As(200)	700	N	N	300		N	N	1000	N
Au(10)	N	N	N	N		N	N	N	N
B(10)	20	L	10	20		20	150	10	20
Ba(20)	G(5000)	G(5000)	G(5000)	G(5000)		200	500	50	5000
Be(1)	5	L	N	N		L	5	1.5	5
Bi(10)	N	N	N	N		N	150	N	50
Cd(20)	L	20	200	N		N	1	N	N
Co(5)	7	N	N	N		N	5	10	100
Cr(10)	50	30	30	30		20	10	20	L
Cu(5)	150	70	30	30		30	1000	500	7000
La(20)	N	N	N	N		N	70	N	300
Mo(5)	15	30	7	100		N	100	70	N
Nb(20)	N	N	N	N		N	50	N	N
Ni(5)	50	7	L	L		5	7	100	50
Pb(10)	2000	G(20000)	G(20000)	G(20000)		30	1500	200	150
Sb(100)	500	150	100	100		N	N	100	L
Sc(5)	L	L	L	L		N	L	5	L
Sn(10)	N	N	N	N		N	N	N	N
Sr(100)	1000	1500	2000	1500		100	L	100	200
V(10)	200	30	10	30		15	15	70	30
W(50)	100	N	N	N		N	N	N	N
Y(10)	L	15	L	L		N	10	20	20
Zn(200)	2000	500	G(10000)	5000		N	300	500	N
Zr(10)	20	10	20	20		50	150	50	50
Th(100)	N	N	N	N		N	N	N	N

Analysis by Branch Exploration Research, U.S. Geol. Survey, Denver, Colorado
Fe, Mg, Ti reported in %, all other elements reported in ppm.
Lower limits of determination are in parentheses.
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Semi-Quantitative Spectrographic Analysis

Element	Sample Number								
	262	263	265	266					
Fe %(.05)	20	G(20)	1.5	.07					
Mg %(.02)	.2	.2	.02	L					
Ca %(.05)	.15	.1	L	L					
Ti %(.002)	.1	.03	.07	.002					
Mn(10)	300	70	30	10					
Ag(.5)	200	70	30	70					
As(200)	1500	N	N	N					
Au(10)	N	N	10	N					
B(10)	70	L	10	10					
Ba(20)	300	50	700	300					
Be(1)	L	N	2	7					
Bi(10)	200	500	N	N					
Cd(20)	100	N	N	N					
Co(5)	20	N	N	N					
Cr(10)	100	20	N	N					
Cu(5)	10000	100	20	5					
La(20)	70	N	70	N					
Mo(5)	N	20	N	N					
Nb(20)	N	L	N	L					
Ni(5)	30	15	N	N					
Pb(10)	15000	.700	50	30					
Sb(100)	3000	L	N	N					
Sc(5)	5	N	N	N					
Sn(10)	N	N	N	N					
Sr(100)	200	N	L	L					
V(10)	70	10	L	L					
W(50)	N	N	N	N					
Y(10)	15	L	15	10					
Zn(200)	7000	300	N	N					
Zr(10)	100	70	200	L					
Th(100)	N	N	N	N					

Analysis by Branch Exploration Research, U.S. Geol. Survey, Denver, Colorado
Fe, Mg, Ti reported in %, all other elements reported in ppm.
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Semi-Quantitative Spectrographic Analysis

Element — Sample Number

	301	302	303	304	305	306	307	308	309
Fe %(.05)	10	7	20	2	7	15	7	5	3
Mg %(.02)	.2	.3	.07	.7	5	.3	2	3	.7
Ca %(.05)	2	10	7	.7	5	3	5	5	.5
Ti %(.002)	.02	.02	.02	.2	.1	.005	.02	.2	.15
Mn(10)	5000	500	150	500	700	1000	G(5000)	700	500
Ag(.5)	50	20	.7	N	70	20	70	1	5
As(200)	1000	N	N	N	N	N	N	N	N
Au(10)	N	N	N	N	N	N	N	N	N
B(10)	15	10	L	10	50	20	15	L	50
Ba(20)	100	100	200	300	200	1500	200	700	300
Be(1)	7	1.5	2	1.5	N	1	2	1.5	1.5
Bi(10)	500	500	50	N	100	150	30	N	N
Cd(20)	500	30	N	N	N	N	N	N	N
Co(5)	100	20	10	15	15	50	100	30	30
Cr(10)	70	50	50	70	30	20	20	200	70
Cu(5)	G(20000)	G(20000)	500	150	15000	G(20000)	G(20000)	300	10000
La(20)	50	20	20	50	N	N	20	100	50
Mo(5)	70	L	5	N	N	N	20	N	20
Nb(20)	N	N	N	20	N	N	N	N	N
Ni(5)	20	7	7	50	10	10	70	100	50
Pb(10)	7000	100	30	20	15	15	15	30	10
Sb(100)	2000	N	N	N	N	N	N	N	N
Sc(5)	L	L	L	7	L	N	N	20	7
Sn(10)	N	N	20	N	N	N	N	N	N
Sr(100)	N	150	N	150	L	100	L	500	150
V(10)	1500	100	30	70	20	150	70	150	100
W(50)	200	100	150	N	N	N	N	N	N
Y(10)	20	20	15	10	10	10	15	20	10
Zn(200)	G(1000)	300	N	N	N	N	N	N	N
Zr(10)	50	100	L	150	50	10	100	150	70
Th(100)	N	N	N	N	N	N	N	N	N

Analysis by Branch Exploration Research, U.S. Geol. Survey, Denver, Colorado
Fe, Mg, Ti reported in %, all other elements reported in ppm.
Lower limits of determination are in parentheses.
G = greater than value shown, N = not detected at limit of detection, < detected, but below value shown.

Semi-Quantitative Spectrographic Analysis

Element	Sample Number								
	312	313	314	315	316A	316B	317	318A	318B
Fe % (.05)	1.5	2	3	7	7	3	1	.7	2
Mg % (.02)	.7	.2	.3	.05	1.5	.5	.2	.5	2
Ca % (.05)	.7	.15	.2	.1	7	10	.2	2	10
Ti % (.002)	.1	.15	.2	.15	.1	.1	.1	.07	.15
Mn (10)	200	1000	70	300	1500	2000	70	200	500
Ag (.5)	L	N	3	15	N	N	L	L	N
As (200)	N	N	N	N	N	N	N	N	N
Au (10)	N	N	N	N	N	N	N	N	N
B (10)	150	20	10	20	20	50	20	30	10
Ba (20)	500	500	70	1000	50	200	300	300	200
Be (1)	1.5	1	1.5	1	2	L	3	5	1
Bi (10)	N	N	L	L	L	N	N	N	N
Cd (20)	N	N	N	N	N	N	N	N	N
Co (5)	10	L	7	100	15	20	N	N	10
Cr (10)	20	50	50	50	30	150	L	N	20
Cu (5)	100	300	5000	20000	500	150	20	20	20
La (20)	150	70	50	50	N	70	N	N	50
Mo (5)	N	N	70	N	N	N	N	N	N
Nb (20)	L	N	N	N	N	N	N	30	N
Ni (5)	70	15	50	70	15	20	N	N	15
Pb (10)	15	15	15	50	10	20	200	70	20
Sb (100)	N	N	N	70	N	N	N	N	N
Sc (5)	5	5	5	5	L	5	L	5	7
Sn (10)	N	N	N	N	N	N	N	N	N
Sr (100)	500	100	150	100	500	300	N	150	500
V (10)	70	50	100	100	70	70	30	10	30
W (50)	N	N	N	N	L	N	N	N	N
Y (10)	L	15	10	10	15	70	L	10	15
Zn (200)	N	N	N	N	N	N	N	N	N
Zr (10)	100	70	70	200	100	300	50	70	70
Th (100)	N	N	N	N	N	N	N	N	N

Analysis by Branch Exploration Research, U.S. Geol. Survey, Denver, Colorado
Fe, Mg, Ti reported in %, all other elements reported in ppm.
Lower limits of determination are in parentheses.
G = greater than value shown, N = not detected at limit of detection, < detected, but below value shown.

Semi-Quantitative Spectrographic Analysis

Element	Sample Number								
	319	321							
Fe %(.05)	20	20							
Mg %(.02)	.3	.5							
Ca %(.05)	1.5	5							
Ti %(.002)	.015	.02							
Mn(10)	5000	5000							
Ag(.5)	20	20							
As(200)	500	N							
Au(10)	N	N							
B(10)	50	30							
Ba(20)	G(5000)	5000							
Be(1)	N	N							
Bi(10)	N	N							
Cd(20)	N	N							
Co(5)	N	N							
Cr(10)	50	70							
Cu(5)	300	G(20000)							
La(20)	N	N							
Mo(5)	15	N							
Nb(20)	N	N							
Ni(5)	20	10							
Pb(10)	50	200							
Sb(100)	150	L							
Sc(5)	L	5							
Sn(10)	N	N							
Sr(100)	3000	500							
V(10)	200	100							
W(50)	N	N							
Y(10)	L	L							
Zn(200)	200	100							
Zr(10)	10	50							
Th(100)	N	N							

Analysis by Branch Exploration Research, U.S. Geol. Survey, Denver, Colorado
Fe, Mg, Ti reported in %, all other elements reported in ppm.
Lower limits of determination are in parentheses.
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Semi-Quantitative Spectrographic Analysis

lement

Sample Number

	324	325	328	329	331	332	333	334	335
Fe %(.05)	.7	5	1	10	2	10	7	10	15
Mg %(.02)	.15	.5	.5	.3	2	.5	.3	.3	.2
Ca %(.05)	1	3	1	10	7	10	7	3	2
Ti %(.002)	.03	L	.07	.015	.05	.07	.05	.02	.05
Mn(10)	100	2000	70	1000	1000	2000	500	100	G(5000)
Ag(.5)	N	N	.7	20	10	3	5	70	50
As(200)	N	N	N	1000	N	500	1000	N	1000
Au(10)	N	N	N	N	N	N	N	N	N
B(10)	20	15	10	10	30	30	70	20	50
Ba(20)	50	20	30	2000	G(5000)	700	30	G(5000)	G(5000)
Be(1)	L	L	L	1	N	L	N	N	1.5
Bi(10)	N	N	N	20	10	20	15	10	50
Cd(20)	N	N	N	N	N	N	N	300	N
Co(5)	L	20	7	N	N	5	L	N	10
Cr(10)	N	20	100	15	15	15	50	50	20
Cu(5)	200	100	300	1500	1500	20000	15000	300	20000
La(20)	L	N	20	N	50	20	50	N	30
Mo(5)	N	10	N	7	N	N	10	20	10
Nb(20)	N	N	N	N	N	N	N	N	N
Ni(5)	20	100	50	15	10	50	15	10	50
Pb(10)	N	10	L	10000	300	100	150	G(20000)	200
Sb(100)	N	N	N	1000	N	N	100	100	500
Sc(5)	N	N	L	N	N	L	L	N	5
Sn(10)	N	N	N	N	N	N	N	10	N
Sr(100)	150	N	N	100	500	200	200	2000	1000
V(10)	L	10	15	L	10	10	200	30	70
W(50)	N	N	N	N	N	N	N	N	N
Y(10)	N	10	N	10	10	20	10	L	10
Zn(200)	N	200	N	N	N	N	N	G(10000)	300
Zr(10)	150	N	20	30	100	300	10	50	150
Th(100)	N	N	N	N	N	N	N	N	N

Analysis by Branch Exploration Research, U.S. Geol. Survey, Denver, Colorado
Fe, Mg, Ti reported in %, all other elements reported in ppm.
Lower limits of determination are in parentheses.
G = greater than value shown, N = not detected at limit of detection, < detected, but below value shown.

Semi-Quantitative Spectrographic Analysis

Element — Sample Number

	336	338	339	340	341	342	343	344	347
Fe %(.05)	10	2	.2	5	.5	20	10	3	15
Mg %(.02)	.05	1.5	1	3	1	.2	1	5	2
Ca %(.05)	1	5	2	7	2	.15	2	7	5
Ti %(.002)	.03	.15	.002	.2	.02	.05	.03	.05	.03
Mn(10)	300	200	70	500	70	100	100	200	G(5000)
Ag(.5)	70	.7	1000	5	1000	.5	1	7	N
As(200)	1000	N	L	N	200	300	L	N	200
Au(10)	N	N	N	N	N	N	N	N	N
B(10)	30	10	10	30	15	20	20	20	20
Ba(20)	G(5000)	500	50	2000	50	150	50	300	G(5000)
Be(1)	1	2	1	1.5	L	L	L	1	2
Bi(10)	N	N	L	N	10	N	N	N	N
Cd(20)	500	N	N	N	N	N	50	200	N
Co(5)	N	15	N	20	N	50	30	10	200
Cr(10)	30	20	N	100	10	10	10	L	.5
Cu(5)	100	50	2000	100	3000	50	30	30	15
La(20)	N	30	20	100	N	N	N	N	L
Mo(5)	20	N	N	N	N	15	5	7	20
Nb(20)	N	N	N	N	N	N	N	N	N
Ni(5)	5	20	N	50	N	100	30	10	50
Pb(10)	20000	100	1000	50	1500	500	1000	15000	70
Sb(100)	300	N	3000	N	3000	N	N	L	N
Sc(5)	N	7	N	20	N	N	N	L	L
Sn(10)	N	N	N	N	N	N	N	N	N
Sr(100)	2000	L	N	700	100	L	L	100	200
V(10)	30	70	20	100	L	200	30	20	100
W(50)	50	N	N	N	N	N	N	N	N
Y(10)	L	15	N	70	N	L	L	N	10
Zn(200)	G(10000)	N	300	N	700	10000	G(10000)	G(10000)	N
Zr(10)	50	50	N	100	20	30	20	20	50
Th(100)	N	N	N	N	N	N	N	N	N

Analysis by Branch Exploration Research, U.S. Geol. Survey, Denver, Colorado
Fe, Mg, Ti reported in %, all other elements reported in ppm.
Lower limits of determination are in parentheses.
G = greater than value shown, N = not detected at limit of detection, < detected, but below value shown.

Semi-Quantitative Spectrographic Analysis

Element	Sample Number								
	349	350	351	353					
Fe %(.05)	10	3	10	2					
Mg %(.02)	2	.5	.1	.3					
Ca %(.05)	10	2	3	1.5					
Ti %(.002)	.03	.15	.05	.05					
Mn(10)	3000	500	700	500					
Ag(.5)	N	150	30	70					
As(200)	N	N	200	N					
Au(10)	N	N	N	N					
B(10)	L	100	300	100					
Ba(20)	50	200	G(5000)	100					
Be(1)	1.5	5	L	1					
Bi(10)	N	1000	N	N					
Cd(20)	N	N	50	500					
Co(5)	15	N	L	5					
Cr(10)	L	20	50	15					
Cu(5)	5	10000	30	30					
La(20)	N	200	N	20					
Mo(5)	30	300	7	100					
Nb(20)	N	20	N	N					
Ni(5)	10	20	10	15					
Pb(10)	20	1500	20000	20000					
Sb(100)	N	L	N	N					
Sc(5)	N	L	5	L					
Sn(10)	70	L	N	N					
Sr(100)	100	100	2000	100					
V(10)	70	50	100	20					
W(50)	300	N	N	N					
Y(10)	L	20	L	N					
Zn(200)	N	300	1000	G(10000)					
Zr(10)	50	150	30	70					
Th(100)	N	N	N	N					

Analysis by Branch Exploration Research, U.S. Geol. Survey, Denver, Colorado
Fe, Mg, Ti reported in %, all other elements reported in ppm.
Lower limits of determination are in parentheses.
G = greater than value shown, N = not detected at limit of detection, < detected, but below value shown.

Semi-Quantitative Spectrographic Analysis

81-3

Element	Sample Number 501	502							
Fe % (.05)	.3	L							
Mg % (.02)	5	3							
Ca % (.05)	10	5							
Ti % (.002)	.005	.005							
Mn (10)	300	50							
Ag (.5)	5	N							
As (200)	N	N							
Au (10)	N	N							
B (10)	10	N							
Ba (20)	G5000	G5000							
Be (1)	N	N							
Bi (10)	N	N							
Cd (20)	300	N							
Co (5)	N	N							
Cr (10)	10	L							
Cu (5)	30	5							
La (20)	N	N							
Mo (5)	N	N							
Nb (20)	N	N							
Ni (5)	5	L							
Pb (10)	G20000	100							
Sb (100)	N	N							
Sc (5)	N	L							
Sn (10)	N	N							
Sr (100)	2000	5000							
V (10)	10	L							
W (50)	N	N							
Y (10)	10	10							
Zn (200)	G10000	N							
[illegible] (10)	N	10							
Th (100)	N	N							

Analysis by Branch Exploration Research, U.S. Geol. Survey, Denver, Colorado
Fe, Mg, Ti reported in %, all other elements reported in ppm.
Lower limits of determination are in parentheses.
G = greater than value shown, N = not detected at limit of detection, < detected, but below value shown.

added 21 Mar 88

Semi-Quantitative Spectrographic Analysis

81-1

ement	Sample Number								
	503	504	505	506	507				
Fe %(.05)	.5	.05	.2	20	.05				
Mg %(.02)	7	3	2	.05	2				
Ca %(.05)	20	20	5	.05	3				
Ti %(.002)	.007	L	.02	.07	.007				
Mn(10)	700	100	70	70	150				
Ag(.5)	L	N	.5	N	N				
As(200)	N	N	N	500	N				
Au(10)	N	N	N	N	N				
B(10)	N	N	N	10	N				
Ba(20)	G5000	G5000	G5000	G5000	G5000				
Be(1)	N	N	N	L	N				
Bi(10)	N	N	N	N	N				
Cd(20)	N	N	N	N	N				
Co(5)	N	N	N	N	N				
(10)	10	L	10	70	L				
Cu(5)	5	5	10	50	L				
La(20)	N	N	N	N	L				
Mo(5)	N	N	L	30	N				
Nb(20)	N	N	N	N	N				
Ni(5)	5	L	L	20	L				
Pb(10)	100	70	50	100	L				
Sb(100)	N	N	N	N	N				
Sc(5)	N	N	L	5	L				
Sn(10)	N	N	N	N	N				
Sr(100)	3000	5000	5000	5000	G5000				
V(10)	20	L	20	500	L				
W(50)	N	N	N	N	N				
Y(10)	10	10	10	10	10				
Zn(200)	N	N	N	500	N				
(10)	L	N	15	30	L				
Th(100)	N	N	N	N	N				

Analysis by Branch Exploration Research, U.S. Geol. Survey, Denver, Colorado
Fe, Mg, Ti reported in %, all other elements reported in ppm.
Lower limits of determination are in parentheses.
G = greater than value shown, N = not detected at limit of detection, < detected, but below value shown.

added 21 Mar 88

Semi-Quantitative Spectrographic Analysis

81-3

Element	Sample Number							
	508	513	520	526	527	528	529	530
Fe %(.05)	L	L	.2	.15	.15	1	.7	.05
Mg %(.02)	L	L	1	L	.03	L	L	L
Ca %(.05)	2	L	5	L	.15	L	.7	.2
Ti %(.002)	L	.07	.05	.02	.05	.015	.01	.015
Mn(10)	L	15	5000	500	3000	15	L	N
Ag(.5)	N	N	150	N	N	N	7	1
As(200)	N	N	N	N	N	N	N	N
Au(10)	N	N	N	N	N	N	N	N
B(10)	N	N	10	N	L	N	10	10
Ba(20)	G(5000)	G(5000)	G(5000)	G(5000)	G(5000)	G(5000)	G(5000)	G(5000)
Be(1)	N	L	L	1.5	L	L	1	N
Bi(10)	N	N	N	N	N	N	N	N
Cd(20)	N	N	N	N	N	N	N	N
Co(5)	N	N	N	10	5	N	5	N
Cr(10)	N	10	10	20	10	L	150	50
Cu(5)	L	20	200	100	20	30	100	15
La(20)	N	L	N	50	N	N	L	L
Mo(5)	N	N	N	5	N	N	20	L
Nb(20)	N	N	N	N	N	N	N	N
Ni(5)	L	L	L	30	L	L	150	L
Pb(10)	N	N	100	20	L	N	10	10
Sb(100)	N	N	200	N	N	N	N	N
Sc(5)	N	L	L	L	L	L	5	L
Sn(10)	N	N	N	N	N	N	N	N
Sr(100)	5000	5000	1000	3000	5000	5000	500	G(5000)
V(10)	L	10	30	20	30	15	500	150
W(50)	N	N	N	N	N	N	N	N
Y(10)	10	10	10	10	15	10	20	15
Zn(200)	N	N	200	300	N	N	200	N
Zr(10)	L	L	50	10	15	10	20	10
Th(100)	N	N	N	N	N	N	N	N

Analysis by Branch Exploration Research, U.S. Geol. Survey, Denver, Colorado
Fe, Mg, Ti reported in %, all other elements reported in ppm.
Lower limits of determination are in parentheses.
G = greater than value shown, N = not detected at limit of detection, < detected, but below value shown

added 21 Mar 88

Semi-Quantitative Spectrographic Analysis

81-3

Element	Sample Number								
	509								
Fe % (.05)	L								
Mg % (.02)	10								
Ca % (.05)	20								
Ti % (.002)	.005								
Mn (10)	200								
Ag (.5)	N								
As (200)	N								
Au (10)	N								
B (10)	N								
Ba (20)	G (5000)								
Be (1)	N								
Bi (10)	N								
Cd (20)	N								
Co (5)	N								
Cr (10)	N								
Cu (5)	L								
La (20)	N								
Mo (5)	N								
Nb (20)	N								
Ni (5)	L								
Pb (10)	30								
Sb (100)	N								
Sc (5)	N								
Sn (10)	N								
Sr (100)	5000								
V (10)	10								
W (50)	N								
Y (10)	L								
Zn (200)	N								
Zr (10)	L								
Th (100)	N								

Analysis by Branch Exploration Research, U.S. Geol. Survey, Denver, Colorado
Fe, Mg, Ti reported in %, all other elements reported in ppm.
Lower limits of determination are in parentheses.
G = greater than value shown, N = not detected at limit of detection, < detected, but below value shown.

added 21 Mar 88

Semi-Quantitative Spectrographic Analysis

81-3

ement	Sample Number								
	511	512							
%(.05)	10	N							
Mg %(.02)	.07	L							
Ca %(.05)	.05	L							
Ti %(.002)	.07	L							
Mn(10)	5000	N							
Ag(.5)	200	N							
As(200)	500	N							
Au(10)	N	N							
B(10)	15	N							
Ba(20)	G5000	G5000							
Be(1)	L	L							
Bi(10)	N	N							
Cd(20)	N	N							
Co(5)	150	N							
(10)	30	L							
Cu(5)	1000	20							
La(20)	N	N							
Mo(5)	10	N							
Nb(20)	N	N							
Ni(5)	150	L							
Pb(10)	150	700							
Sb(100)	1000	N							
Sc(5)	7	L							
Sn(10)	N	N							
Sr(100)	5000	G 5000							
V(10)	20	70							
W(50)	N	N							
Y(10)	10	10							
Zn(200)	700	N							
(10)	30	L							
h(100)	N	N							

Analysis by Branch Exploration Research, U.S. Geol. Survey, Denver, Colorado
Fe, Mg, Ti reported in %, all other elements reported in ppm.
Lower limits of determination are in parentheses.
G = greater than value shown, N = not detected at limit of detection, < detected, but below value shown.

added 21 May 88

Semi-Quantitative Spectrographic Analysis

8/13

ement	Sample Number								
	522	523	524	525					
% (.05)	1.5	N	.7	.5					
Mg % (.02)	L	L	.2	.03					
Ca % (.05)	L	.05	.05	.05					
Ti % (.002)	.005	.002	.15	.03					
Mn (10) 100	100	N	Lq	10					
Ag (.5)	N	N	N	N					
As (200)	N	N	N	N					
Au (10)	N	N	N	N					
B (10)	N	N	70	L					
Ba (20)	G5000	G5000	G5000	G5000					
Be (1)	N	N	1	N					
Bi (10)	N	N	N	N					
Cd (20)	N	N	N	N					
Co (5)	N	N	N	N					
Cr (10)	10	N	50	15					
Cu (5)	15	L	50	30					
La (20)	N	50	50	L					
Mo (5)	7	N	L	N					
Nb (20)	N	N	N	N					
Ni (5)	L	L	L	L					
Pb (10)	L	L	10	N					
Sb (100)	N	N	N	N					
Sc (5)	L	N	L	L					
Sn (10)	N	N	N	N					
Sr (100)	5000	G5000	5000	2000					
V (10)	20	10	150	50					
W (50)	N	N	N	N					
Y (10)	10	10	10	10					
Zn (200)	N	N	N	N					
Zr (10)	L	10	70	10					
Th (100)	N	N	N	N					

Analysis by Branch Exploration Research, U.S. Geol. Survey, Denver, Colorado
Fe, Mg, Ti reported in %, all other elements reported in ppm.
Lower limits of determination are in parentheses.
G = greater than value shown, N = not detected at limit of detection, < detected, but below value shown.

added 21 May 88

Semi-Quantitative Spectrographic Analysis

ement	Sample Number								
	558	559	560	561	562	563	564	565	566
Fe %(.05)	.07	15	1.5	.3	5	2	.3	.7	1
Mg %(.02)	3	.2	.7	.07	5	.1	.1	.7	3
Ca %(.05)	20	3	5	.2	3	.7	.15	7	10
Ti %(.002)	.007	.15	.2	.02	.3	.3	.03	.007	.05
Mn(10)	150	100	300	300	500	300	300	50	150
Ag(.5)	N	N	5	N	N	N	N	N	N
As(200)	N	N	N	N	N	N	N	N	N
Au(10)	N	N	N	N	N	N	N	N	N
B(10)	N	20	15	100	10	L	200	10	70
Ba(20)	L	100	300	200	500	1500	100	L	100
Be(1)	N	1.5	N	L	N	2	N	N	N
Bi(10)	N	N	N	N	N	N	N	N	N
Cd(20)	N	N	N	N	N	N	N	N	N
Co(5)	N	10	10	L	30	5	N	N	L
Cr(10)	L	30	20	L	700	L	15	10	50
Cu(5)	5	30	15	L	30	7	7	15	10
La(20)	N	N	30	N	30	100	L	N	L
Mo(5)	N	20	50	N	N	L	N	L	L
Nb(20)	N	N	N	N	L	L	N	N	N
Ni(5)	15	70	20	15	200	10	15	30	30
Pb(10)	L	20	20	50	30	50	10	L	20
Sb(100)	N	N	N	N	N	N	N	N	N
Sc(5)	N	L	7	N	20	5	N	N	N
Sn(10)	N	N	N	N	N	N	N	N	N
Sr(100)	300	N	200	N	500	150	N	200	150
V(10)	10	100	70	L	100	15	15	70	30
W(50)	N	N	N	N	N	N	N	N	N
Y(10)	N	L	15	10	20	70	L	N	10
Zn(200)	N	N	N	N	N	N	N	N	N
Zr(10)	N	50	70	15	70	300	30	15	20
Th(100)	N	N	N	N	N	N	N	N	N

Analysis by Branch Exploration Research, U.S. Geol. Survey, Denver, Colorado
Fe, Mg, Ti reported in %, all other elements reported in ppm.
Lower limits of determination are in parentheses.
G = greater than value shown, N = not detected at limit of detection, < detected, but below value shown.

Semi-Quantitative Spectrographic Analysis

ement	Sample Number								
	567	568	569	570	571	572	573	574	575
Fe % (.05)	L	.7	5	10	.07	10	7	10	.7
Mg % (.02)	7	3	3	.07	1.5	1.5	1	.07	1
Ca % (.05)	15	15	3	15	2	G20	.2	.2	G20
Ti % (.002)	L	.2	.2	.02	.005	.15	.3	.02	.2
Mn (10)	30	300	300	150	150	700	2000	500	100
Ag (.5)	N	N	N	30	N	N	N	N	N
As (200)	N	N	300	1500	N	N	N	N	N
Au (10)	N	N	N	N	N	N	N	N	N
B (10)	N	30	15	30	30	30	70	70	50
Ba (20)	N	150	150	G5000	500	700	150	30	700
Be (1)	N	N	N	N	N	1.5	1.5	N	L
Bi (10)	N	N	N	200	N	N	N	N	N
Cd (20)	N	N	N	N	N	N	N	N	N
Co (5)	N	10	30	N	N	L	15	7	N
Cr (10)	10	150	300	20	15	100	50	50	150
Cu (5)	N	20	70	7000	20	20	20	15	5
La (20)	L	20	L	200	N	L	20	L	20
Mo (5)	N	N	N	7	N	L	7	N	7
Nb (20)	N	N	N	N	N	N	L	N	N
Ni (5)	N	70	200	15	7	15	50	50	5
Pb (10)	L	15	100	1500	15	50	30	L	30
Sb (100)	N	N	N	700	N	N	N	N	N
Sc (5)	N	7	10	N	N	5	15	L	5
Sn (10)	N	N	N	30	N	N	N	N	N
Sr (100)	N	100	N	3000	N	200	L	N	700
V (10)	10	100	200	20	10	150	70	30	100
W (50)	N	N	N	N	N	N	N	N	N
Y (10)	N	10	15	N	N	20	20	N	20
Zn (200)	N	N	N	N	N	N	N	N	N
Zr (10)	N	30	30	50	L	200	150	100	100
Th (100)	N	N	N	N	N	N	N	N	N

Analysis by Branch Exploration Research, U.S. Geol. Survey, Denver, Colorado
Fe, Mg, Ti reported in %, all other elements reported in ppm.
Lower limits of determination are in parentheses.
G = greater than value shown, N = not detected at limit of detection, < detected, but below value shown.

Atomic-Absorption Analysis

Element — Sample Number

31-3

	001	002	003	004	006	007	008	009	010
As (5)	8	350	55	25	G(1000)	G(1000)	1050	950	70
Au (.05)	N(.05)	.05	N(.05)	L(.05)	.15	.05	.10	.45	L(.05)
Sb (1)	L(1)	120	5	N(1)	G(200)	G(200)	80	40	25
Zn (5)	15	700	150	10	2000	G(2000)	G(2000)	G(2000)	450

Analysis by Branch Exploration Geochemistry, U.S. Geol. Survey, Denver, Colorado

All elements reported in ppm.

Lower limits of determination are in parentheses.

G = greater than value shown. N = not detected at limit of detection, < detected, but below value shown.

Atomic-Absorption Analysis

Element | Sample Number

81-3

	011	012	013	014	015	017	018	019	020
As (5)	1500	100	50	350	400	150	20	G(1000)	G(1000)
Au (.05)	.40	N(.05)	L(.05)	L(.05)	N(.05)	N(.05)	N(.05)	.10	.10
Sb (1)	200	3	30	15	5	80	2	180	G(200)
Zn (5)	G(2000)	45	1200	1400	G(2000)	1500	150	G(2000)	G(2000)

Analysis by Branch Exploration Geochemistry, U.S. Geol. Survey, Denver, Colorado
All elements reported in ppm.
Lower limits of determination are in parentheses.
G = greater than value shown, N = not detected at limit of detection, < detected, but below value shown.

Atomic-Absorption Analysis

lement

Sample Number

81-3

	021	022	023	024	025	026	027	028	030
As (5)	10	G(1000)	7	G(1000)	G(1000)	350	680	350	65
Au (.05)	N(.05)	.05	L(.05)	.05	.70	.30	.35	L(.05)	L(.05)
Sb (1)	5	G(200	2	140	G200	45	35	G(200)	5
Zn (5)	85	G(2000)	30	G(2000)	G(2000)	250	G2000	700	150

Analysis by Branch Exploration Geochemistry, U.S. Geol. Survey, Denver, Colorado

All elements reported in ppm.

Lower limits of determination are in parentheses.

G = greater than value shown, N = not detected at limit of detection, < detected, but below value shown.

Atomic-Adsorbtion Analysis

Sample Number

81-3

Element	032	034	036	037	040	041	042	043	044
As (5)	100	10	5	400	80	900	25	G(1000)	30
Au (.05)	L(.05)	N(.05)	N(.05)	.05	L(.05)	.20	N(.05)	N(.05)	N(.05)
Sb (1)	5	2	5	G(200)	2	10	L(1)	G(200)	100
Zn (5)	20	10	20	150	60	20	5	G(2000)	G(2000)

Analysis by Branch Exploration Geochemistry, U.S. Geol. Survey, Denver, Colorado
All elements reported in ppm.
Lower limits of determination are in parentheses.

Atomic-Adsorbtion Analysis

81-3

Element	Sample Number								
	573	574	575	576	577	578	579	580	581
(5)	10	50	15	75	L(5)	G2000	65	10	10
Au (.05)	N(.05)	N(.05)	N(.05)	N(.05)	N(.05)	L(.05)	18	N(.05)	N(.05)
Sb (1)	N(1)	N(1)	N(1)	24	N(2)	G1000	40	4	4
Zn (5)	190	20	25	G2000	20	G2000	180	15	55
Au Sw				10 g	10 g	10 g	10 g	10 g	10 g

Analysis by Branch Exploration Geochemistry, U.S. Geol. Survey, Denver, Colorado
All elements reported in ppm.
Lower limits of determination are in parentheses.
G = greater than value shown. N = not detected at limit of detection. < detected, but below value shown

added 21 Mar 88

Atomic-Adsorbtion Analysis

.lement — Sample Number

81-3

	045	046	047	049	050	052	054	056	057
As (5)	6	3	3	650	30	G(1000)	10	7	90
Au (.05)	N(.05)	N(.05)	L(.05)	N(.05)	1.00	1.00	L(.05)	1.00	1000
Sb (1)	3	25	2	G(200)	5	200	1	1	5
Zn (5)	150	G(2000)	G(2000)	50	G(2000)	G(2000)	30	10	30

Analysis by Branch Exploration Geochemistry, U.S. Geol. Survey, Denver, Colorado
All elements reported in ppm.
Lower limits of determination are in parentheses.

Atomic-Adsorbtion Analysis

lement

Sample Number

81-3

	058	059	060	061	062	063	064	066	067
As (5)	4	2	300	30	5	10	G(1000)	85	600
Au (.05)	.15	.10	1.50	N(.05)	N(.05)	L(.05)	.10	L(.05)	.25
Sb (1)	N1	15	5	L(1)	L(1)	2	G(200)	20	60
Zn (5)	10	100	10	15	100	200	G(200)	150	G(2000)

Analysis by Branch Exploration Geochemistry, U.S. Geol. Survey, Denver, Colorado

All elements reported in ppm.

Lower limits of determination are in parentheses.

G = greater than value shown. N = not detected

Atomic-Adsorbtion Analysis

Element — Sample Number

81-3

	068	070	072	073	074	075	075S	076	078
As (5)	900	G(1000)	70	G(1000)	350	850	1000	7	10
Au (.05)	.25	.45	N(.05)	N(.05)	L(.05)	.10	N(.05)	N(.05)	N(.05)
Sb (1)	G(200)	G(200)	5	G(200)	G(200)	G(200)	G(200)	5	2
Zn (5)	G(2000)	800	900	G(2000)	1200	1500	G(2000)	5	25

Analysis by Branch Exploration Geochemistry, U.S. Geol. Survey, Denver, Colorado
All elements reported in ppm.
Lower limits of determination are in parentheses.

Atomic-Adsorbtion Analysis

Element — Sample Number

81-3

	082	083	084	085	086	087	088	089	090
As (5)	20	25	25	8	3	6	G(1000)	15	4
Au (.05)	1.00	4.50	L(.05)	10.0	.85	L(.05)	4.50	L(.05)	L(.05)
Sb (1)	1	1	5	N(1)	N(1)	N(1)	G(200)	L(1)	N(1)
Zn (5)	20	40	20	10	20	150	20	30	30

Analysis by Branch Exploration Geochemistry, U.S. Geol. Survey, Denver, Colorado
All elements in ppm.
Lower limits of determination are in parentheses.

Atomic-Adsorbtion Analysis

Element — Sample Number

81-3

	091	092	093	094	095	096	097	[redacted]
As (5)	4	850	G(1000)	35	L(2)	500	120	
Au (.05)	N(.05)	.15	1.00	N(.05)	.20	.10	N(.05)	
Sb (1)	N(1)	15	100	5	3	50	2	
Zn (5)	50	G(2000)	G(2000)	G(2000)	700	30	G2000	

Analysis by Branch Exploration Geochemistry, U.S. Geol. Survey, Denver, Colorado
All elements reported in ppm.

Atomic-Adsorbtion Analysis

lement	Sample Number 81-3								
	101								
As (5)	10								
Au (.05)	.10								
Sb (1)	3								
Zn (5)	G(2000)								

Analysis by Branch Exploration Geochemistry, U.S. Geol. Survey, Denver, Colorado
All elements reported in ppm.
Lower limits of determination are in parentheses.

Atomic-Adsorbtion Analysis

Element — Sample Number

81-3

	102	103 A	103B	104A	104B	105	106	107	109
As (5)	35	3	3	3	8	25	40	2	1
Au (.05)	N(.05)	L(.05)	N(.05)	N(.05)	L(.05)	N(.05)	N(.05)	N(.05)	N(.05)
Sb (1)	20	2	1	1	2	2	N(1)	L(1)	1
Zn (5)	1400	G(2000)	G(2000)	1000	G(2000)	600	120	30	200

Analysis by Branch Exploration Geochemistry, U.S. Geol. Survey, Denver, Colorado
All elements reported in ppm.
Lower limits of determination are in parentheses.

Atomic-Adsorbtion Analysis

Element — Sample Number

81-3

	110	111	112	113					
As (5)	8	100	400	30					
Au (.05)	N(.05)	N(.05)	N(.05)	N(.05)					
Sb (1)	5	4	20	2					
Zn (5)	70	30	1400	1500					

Analysis by Branch Exploration Geochemistry, U.S. Geol. Survey, Denver, Colorado
All elements reported in ppm.
Lower limits of determination are in parentheses.

Atomic-Adsorbtion Analysis

Element — Sample Number

81-3

	~~200~~	201	202	~~203~~	204	206	207A	207B	208
As (5)	~~100~~	3	30		150	70	450	75	150
Au (.05)		N(.05)	N(.05)		N(.05)	N(.05)	3.00	N(.05)	N(.0
Sb (1)	~~3~~	N(1)	15		G(200)	140	G200	80	G(200)
Zn (5)	~~5~~	60	80		G(2000)	G(2000)	G(2000)	G(2000)	1000

Analysis by Branch Exploration Geochemistry, U.S. Geol. Survey, Denver, Colorado

All elements reported in ppm.

Lower limit of determination are in parentheses

Atomic-Adsorbtion Analysis

lement

Sample Number

81-3

	210	211	212	213	214	215	216A	216B	217
As (5)	200	8	8	15	5	4	15	3	1
Au (.05)	.40	1.00	N(.05)	N(.05)	.10	L(.05)	.60	.60	N(.05)
Sb (1)	G(200)	G(200)	10	1	20	1	2	5	N(1)
Zn (5)	400	600	200	20	10	200	180	50	5

Analysis by Branch Exploration Geochemistry, U.S. Geol. Survey, Denver, Colorado

All elements reported in ppm.

Lower limits of determination are in parentheses

Atomic-Adsorbtion Analysis

lement

Sample Number

81-3

	220	222	223	225	226	227	228	229	230
As (5)	4	250	2	250	6	700	8	750	8
Au (.05)	N(.05)	L(.05)	N(.05)	2.50	L(.05)	.05	N(.05)	.45	N(.05)
Sb (1)	N(1)	G200	2	3	10	25	2	160	5
Zn (5)	1.0	100	50	60	20	1000	50	150	90

Analysis by Branch Exploration Geochemistry, U.S. Geol. Survey, Denver, Colorado

All elements reported in ppm.

Lower limits of determination [illegible]

Atomic-Adsorbtion Analysis

lement

Sample Number

81-3

	231	232	233	234	235	236	237	238	239
As (5)	400	2	10	G(1000)	65	30	75	9	200
Au (.05)	N(.05)	N(.05)	N(.05)	1.00	N(.05)	N(.05)	N(.05)	N(.05)	N(.05)
Sb (1)	G(200)	40	1	15	10	4	3	20	G(200)
Zn (5)	350	10	30	50	35	G(2000)	60	G(2000)	600

Analysis by Branch Exploration Geochemistry, U.S. Geol. Survey, Denver, Colorado

All elements reported in ppm.

Lower limits of determination are in parentheses

Atomic-Adsorbtion Analysis

lement

Sample Number

81-3

	240	241	242	243	245	247	248	249	250
As (5)	400	2	20	10	35	5	85	9	3
Au (.05)	N(.05)	N(.05)	N(.05)	N(.05)	N(.05)	N(.05)	.10	.10	N(.05)
Sb (1)	30	3	5	1	60	L(1)	G(200)	5	1
Zn (5)	G(2000)	200	800	20	20	10	G(2000)	200	1

Analysis by Branch Exploration Geochemistry, U.S. Geol. Survey, Denver, Colorado
All elements reported in ppm.
Lower limits of determination are in parentheses.

Atomic-Adsorbtion Analysis

Element — Sample Number

81-3

	252	253	254	255	256	~~257~~	258A	258B	259
As (5)	750	300	85	100	300		85	75	500
Au (.05)	N(.05)	N(.05)	N(.05)	N(.05)	N(.05)		N(.05)	L(.05)	N(.05)
Sb (1)	G(200)	G(200)	140	50	80		20	10	60
Zn (5)	1320	450	550	G(2000)	G(2000)		3	360	100

Analysis By Branch Exploration Geochemistry, U.S. Geol. Survey, Denver, Colorado
All elements reported in ppm.
Lower limits of determination are in parentheses.
G [illegible]

Atomic-Adsorbtion Analysis

Element — Sample Number 81-3

	260	262	263	265	266	~~267~~	~~268~~	~~269~~	~~270~~
As (5)	20	900	2	30	7	~~110~~	~~5~~	~~G 1000~~	
Au (.05)	2.00	.05	N(.05)	1.00	13.00	~~N(.05)~~	~~N(.05)~~	~~.10~~	
Sb (1)	30	G(200)	60	4	N(1)	~~100~~	~~1~~	~~700~~	
Zn (5)	150	G(2000)	200	25	5	~~4800~~	~~55~~	~~G 1000~~	

Analysis by Branch Exploration Geochemistry, U.S. Geol. Survey, Denver, Colorado

All elements reported in ppm.

Lower limits of determination are in parentheses.

G = greater than value shown. N = not detected at limit of detection. < detected, but below value shown.

Atomic-Adsorbtion Analysis

Element — Sample Number

81-3

	301	302	303	304	305	306	307	308	309
As (5)	750	100	45	10	10	35	20	8	15
Au (.05)	1.00	1.50	.30	N(.05)	L(.05)	N(.05)	N(.05)	N(.05)	N(.05)
Sb (1)	G(200)	10	20	2	1	15	2	N(1)	1
Zn (5)	G(2000)	200	50	3	45	70	60	20	3

Analysis by Branch Exploration Geochemistry, U.S. Geol. Survey, Denver, Colorado
All elements reported in ppm.
Lower limits of determination are in parentheses.
G = greater than value shown, N = not detected at limit of detection, < detected, but below value shown.

Atomic-Adsorbtion Analysis

Element — Sample Number

81-3

	312	313	314	315	316A	316B	317	318A	318B
As (5)	9	15	7	90	25	20	10	7	6
Au (.05)	N(.05)	N(.05)	N(.05)	N(.05)	N(.05)	N(.05)	N(.05)	N(.05)	N(.05)
Sb (1)	1	N(1)	5	G(200)	5	5	L(1)	L(1)	L(1)
Zn (5)	25	10	10	70	20	90	60	20	30

Analysis by Branch Exploration Geochemistry, U.S. Geol. Survey, Denver, Colorado
All elements reported in ppm.
Lower limits of determination are in parentheses.
G = greater than value shown, N = not detected at limit of detection, < detected, but below value shown.

Atomic-Adsorbtion Analysis

lement

Sample Number

81-3

	319	321	324	325	328	329	331	332	333
As (5)	450	100	9	15	4	950	100	600	750
Au (.05)	N(.05)	N(.05)	N(.05)	N(.05)	N(.05)	N(.05)	L(.05)	.05	L(.05)
Sb (1)	120	40	1	1	2	G(200)	15	20	60
Zn (5)	150	200	20	150	100	100	70	90	20

Analysis by Branch Exploration Geochemistry, U.S. Geol. Survey, Denver, Colorado
All elements reported in ppm.
Lower limits of determination are in parentheses.
G = greater than value shown, N = not detected at limit of detection, < detected, but below value shown.

Atomic-Adsorbtion Analysis

lement

Sample Number

81-3

	334	335	336	338	339	340	341	342	343
As (5)	150	650	650	4	15	90	300	100	70
Au (.05)	N(.05)	N(.05)	N(.05)	N(.05)	N(.05)	N(.05)	N(.05)	N(.05)	N(.05)
Sb (1)	60	G(200)	G(200)	2	G(200)	20	G(200)	25	10
Zn (5)	G(2000)	150	G(2000)	100	200	60	650	G(2000)	G(2000)

Analysis by Branch Exploration Geochemistry, U.S. Geol. Survey, Denver, Colorado

All elements reported in ppm.

Lower limits of determination are in parentheses.

G = greater than value shown, N = not detected at limit of detection, < detected, but below value shown.

Atomic-Adsorbtion Analysis

Element — Sample Number

81-3

	344	347	349	350	351	353			
As (5)	50	250	5	95	350	70			
Au (.05)	L(.05)	N(.05)	L(.05)	N(.05)	N(.05)	N(.05)			
Sb (1)	25	25	2	40	40	20			
Zn (5)	G(2000)	150	40	250	G(2000)	G(2000)			

Analysis by Branch Exploration Geochemistry, U.S. Geol. Survey, Denver, Colorado

All elements reported in ppm.

Lower limits of determination are in parentheses.

G = greater than value shown, N = not detected at limit of detection, < detected, but below value shown.

Atomic Absorption Analysis

81-3

lement	Sample Number								
	501	502	503	504	505	506	507	508	509
(5)	N	N	10	N	15	200	N	N	5
Au (.05)	N(.05)	N(.05)	N(.05)	N(.05)	N(.05)	N(.05)	N(.05)	N(.05)	N(.05)
Sb (1)	5	N	6	N	4	N	N	1	1
Zn (5)	G1000	40	35	45	N(5)	400	20	N	20

Analysis by Branch Exploration Geochemistry, U.S. Geol. Survey, Denver, Colorado
All elements reported in ppm.
Lower limits of determination are in parentheses.
G = greater than value shown, N = not detected at limit of detection, < detected, but below value shown.

added 21 Mar 88

Atomic-Absorption Analysis

Element | Sample Number 81-3

	510	511	512	513	514	515	516	517	518
(5)	L(5)	210	5	5	5	N	40	N	80
Au (.05)	N(.05)	N(.05)	N(.05)	N(.05)	N(.05)	N(.05)	.05	N(.05)	N(.05)
Sb (1)	N(1)	600	5	N	1	1	85	8	31
Zn (5)	30	380	5	N(5)	N	15	220	230	680

Analysis by Branch Exploration Geochemistry, U.S. Geol. Survey, Denver, Colorado
All elements reported in ppm.
Lower limits of determination are in parentheses.
G = greater than value shown, N = not detected at limit of detection, < detected, but below value shown.

added 21 Mar 88

Atomic-Absorption Analysis

81-3

Element | Sample Number

	519	520	521	522	523	524	525	526	527
(5)	15	15	5	L(5)	N	5	N	10	5
Au (.05)	N(.05)	N(.05)	N(.05)	N(.05)	N(.05)	N(.05)	N(.05)	N(.05)	N(.05)
Sb (1)	10	230	1	N	2	N	N	N	18
Zn (5)	G1000	200	25	5	N	N	N	250	10

Analysis by Branch Exploration Geochemistry, U.S. Geol. Survey, Denver, Colorado
All elements reported in ppm.
Lower limits of determination are in parentheses.
G = greater than value shown, N = not detected at limit of detection, < detected, but below value shown.

added 21 Mar 88

Atomic-Absorption Analysis

81-3

ement

Sample Number

	555	556	557	558	559	560	561	562	563
(5)	35		G200	N(5)	G200	75	40	N(5)	N(5)
Au (.05)				N(.05)	L(.05)	.10	N(.05)	N(.05)	N(.05)
Sb (1)	N(1)		6	N(1)	24	9	10	N(1)	N(1)
Zn (5)	G200		5	10	75	40	30	80	65

Analysis by Branch Exploration Geochemistry, U.S. Geol. Survey, Denver, Colorado
All elements reported in ppm.
Lower limits of determination are in parentheses.
G = greater than value shown, N = not detected at limit of detection, < detected, but below value shown.

Added 21 Mar 88

lement Sample Number 81-3

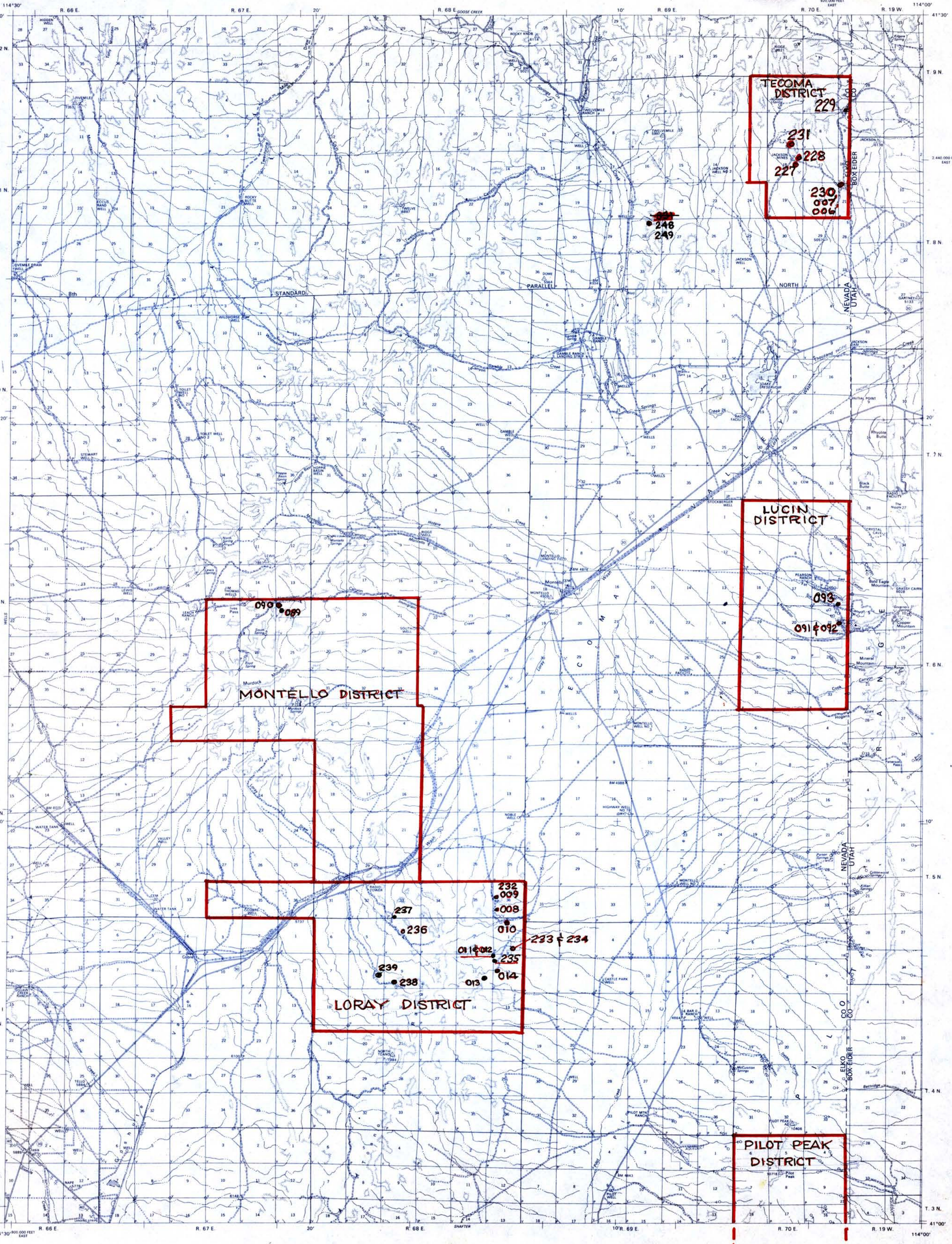
	564	565	566	567	568	569	570	571	572
(5)	N(5)	45	20	N(5)	140	G200	G200	N(5)	55
Au (.05)	N(.05)	N(.05)	N(.05)	N(.05)	N(.05)	N(.05)	.30	N(.05)	N(.05)
Sb (1)	N(1)	N(1)	N(1)	N(1)	N(1)	26	G100	N(1)	N(1)
Zn (5)	15	100	40	5	20	140	90	25	160

Analysis by Branch Exploration Geochemistry, U.S. Geol. Survey, Denver, Colorado
All elements reported in ppm.
Lower limits of determination are in parentheses.
G = greater than value shown, N = not detected at limit of detection, < detected, but below value shown.

added 21 May 88

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

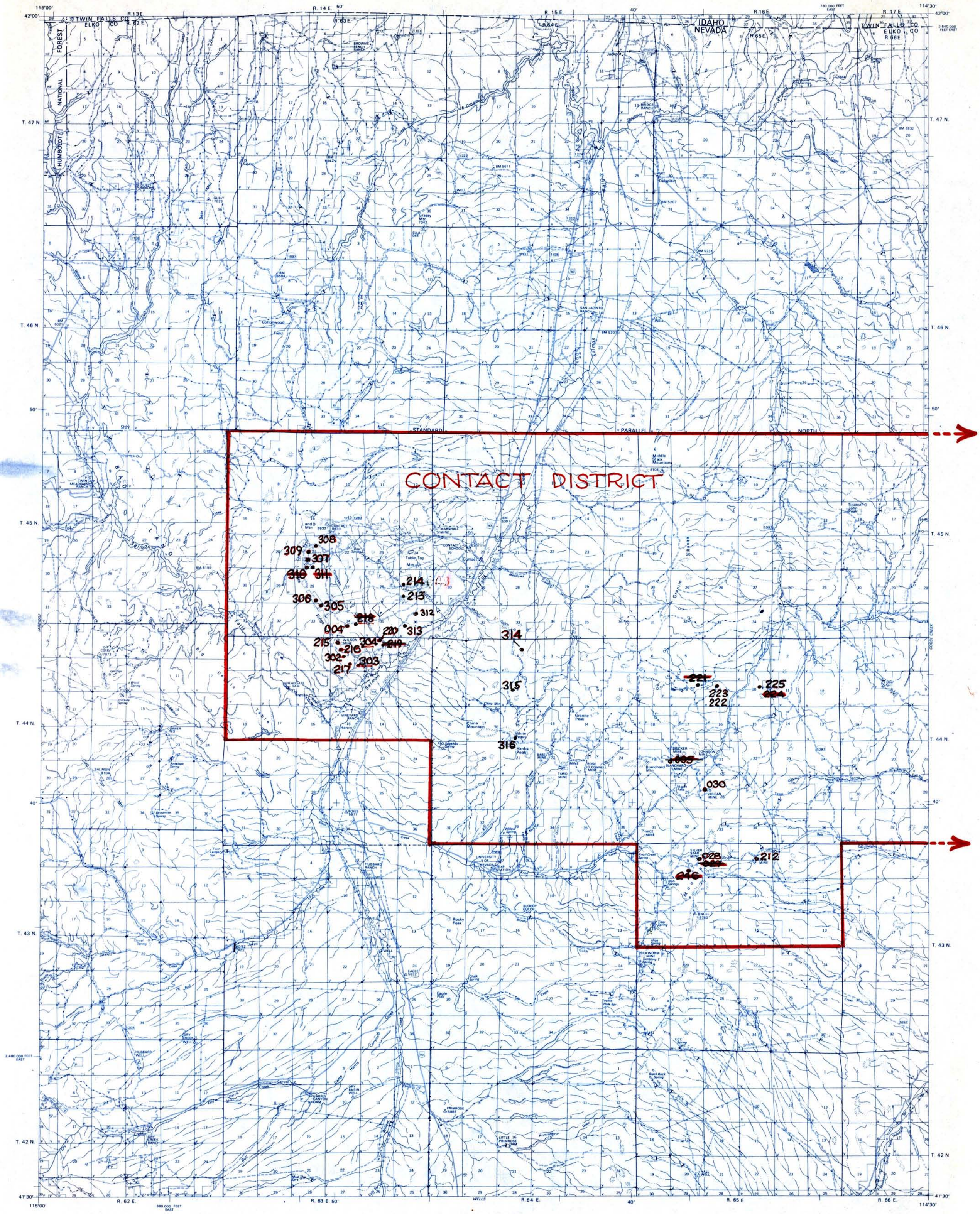
COBRE, NEVADA
30 MINUTE SERIES



NBMG 81-3&4

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

CONTACT, NEVADA
30 MINUTE SERIES

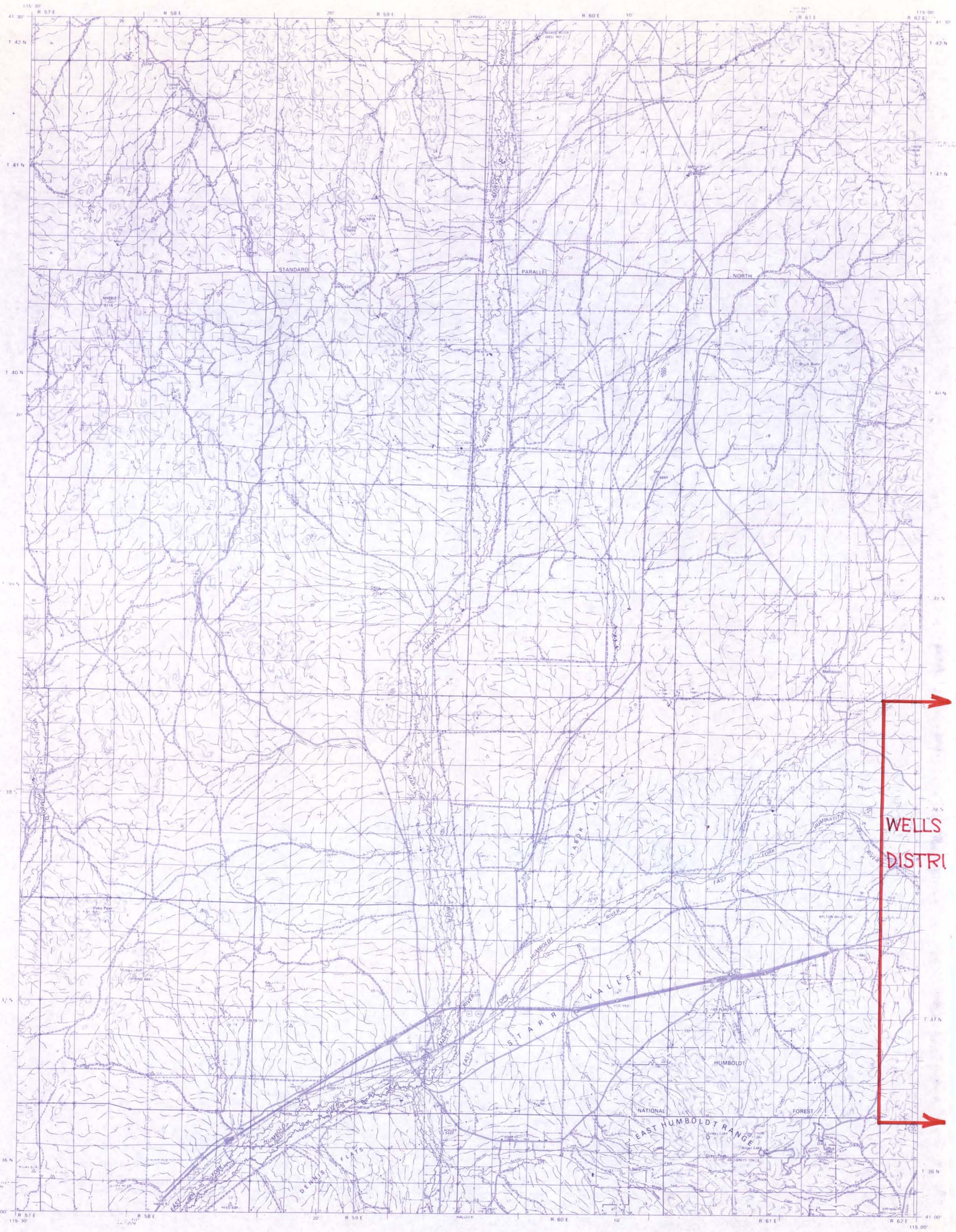


CONTACT, NEVADA
41-114-4

NBMG 81-3+4

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

DEETH, NEVADA



SCALE 1" = 1 MILE

REVISIONS

LEGEND

ALL WEATHER ROAD — PRIMITIVE ROAD

SEASONAL ROAD — TRAIL

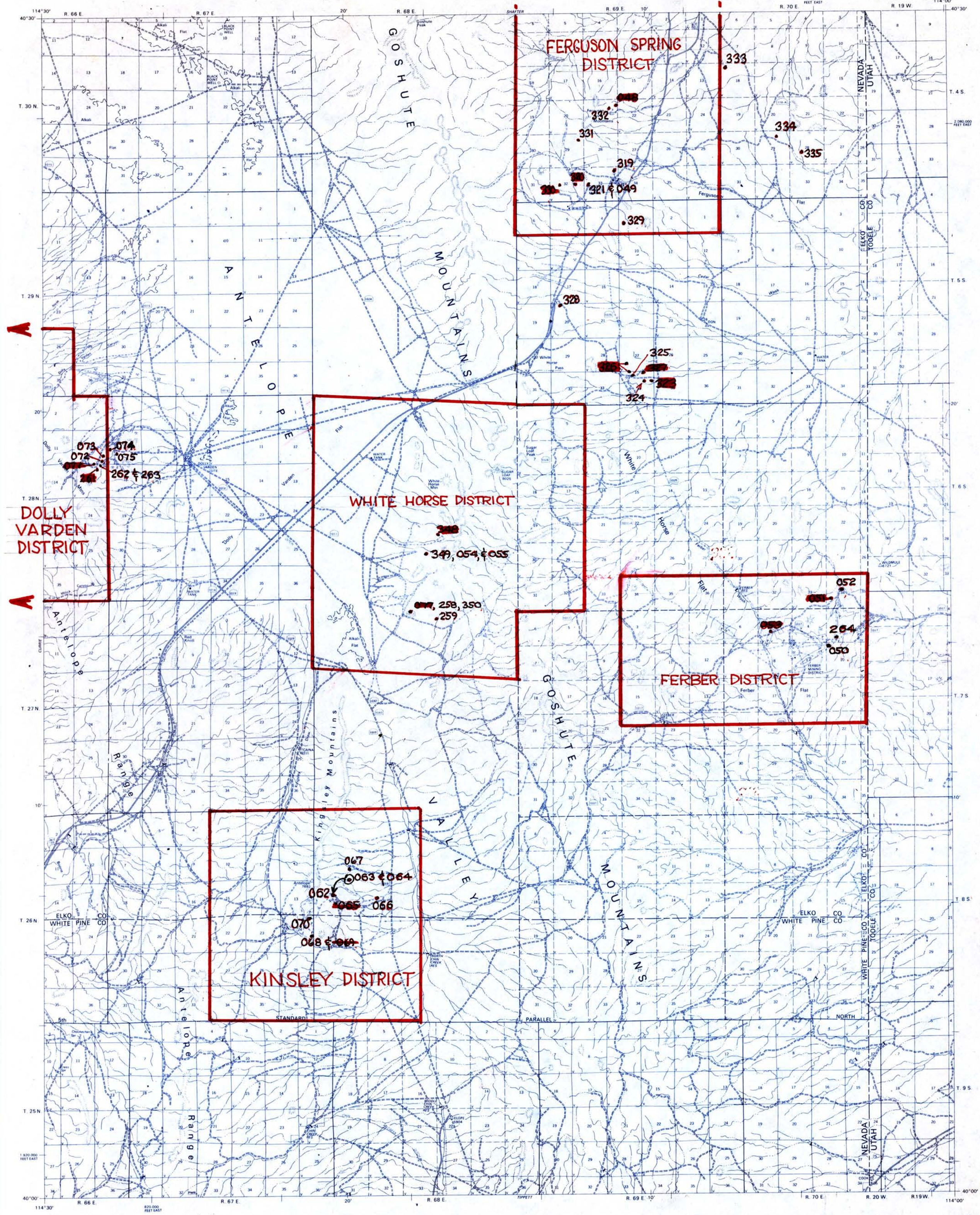
DEETH, NEVADA

1972

NB MG 81-3+4B

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FERGUSON SPRINGS, NEVADA
30 MINUTE SERIES

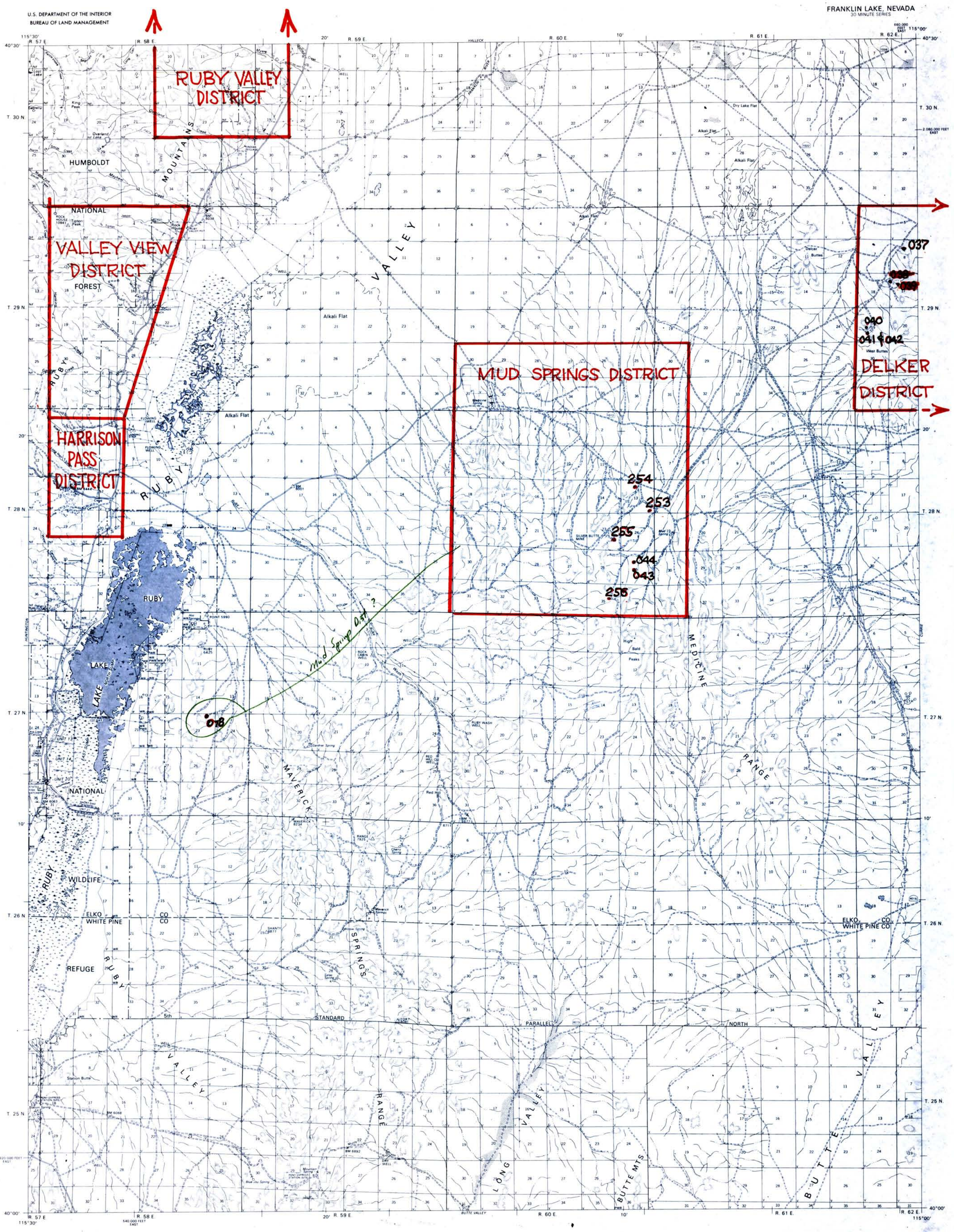


FERGUSON SPRINGS, NEVADA
40-114.2

NBMG 81-3+4C

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FRANKLIN LAKE, NEVADA
30 MINUTE SERIES



SOURCE MATERIAL DATA

(A) U.S.G.S. Quad Maps
(B) U.S.F.S. Quad Maps
(C) B.L.M. Compilation
(D) State Highway Maps

* Source Material Updated With Photography 1968

SCALE: 1" = 1 MILE

REVISIONS
PLANIMETRY
STATUS

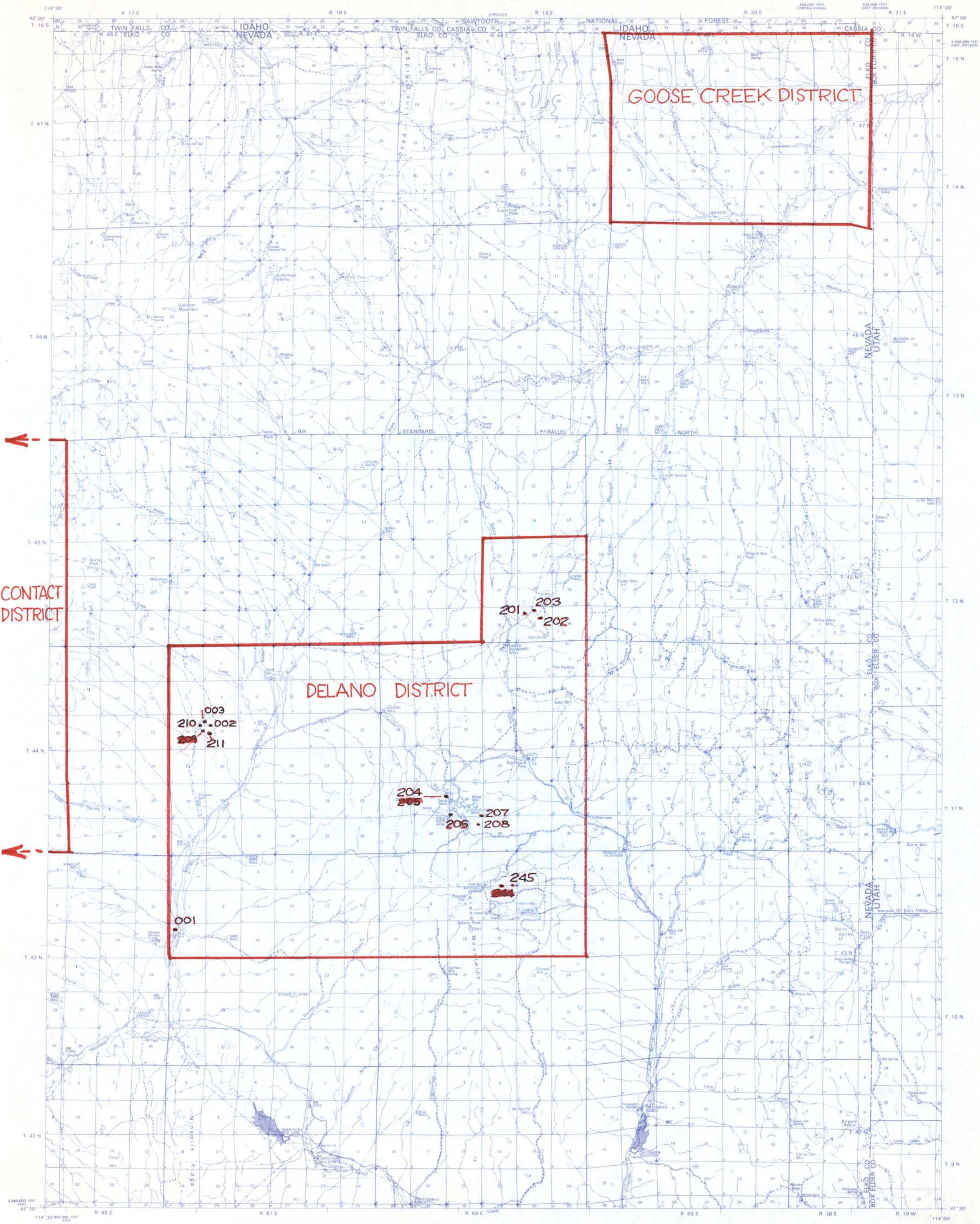
LEGEND
ALL WEATHER ROAD
PRIMITIVE ROAD
SEASONAL ROAD
TRAIL

FRANKLIN LAKE, NEVADA
40-115-3
1972

NBMG 81-3+4D

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

GOOSE CREEK, NEVADA
30 MINUTE SERIES

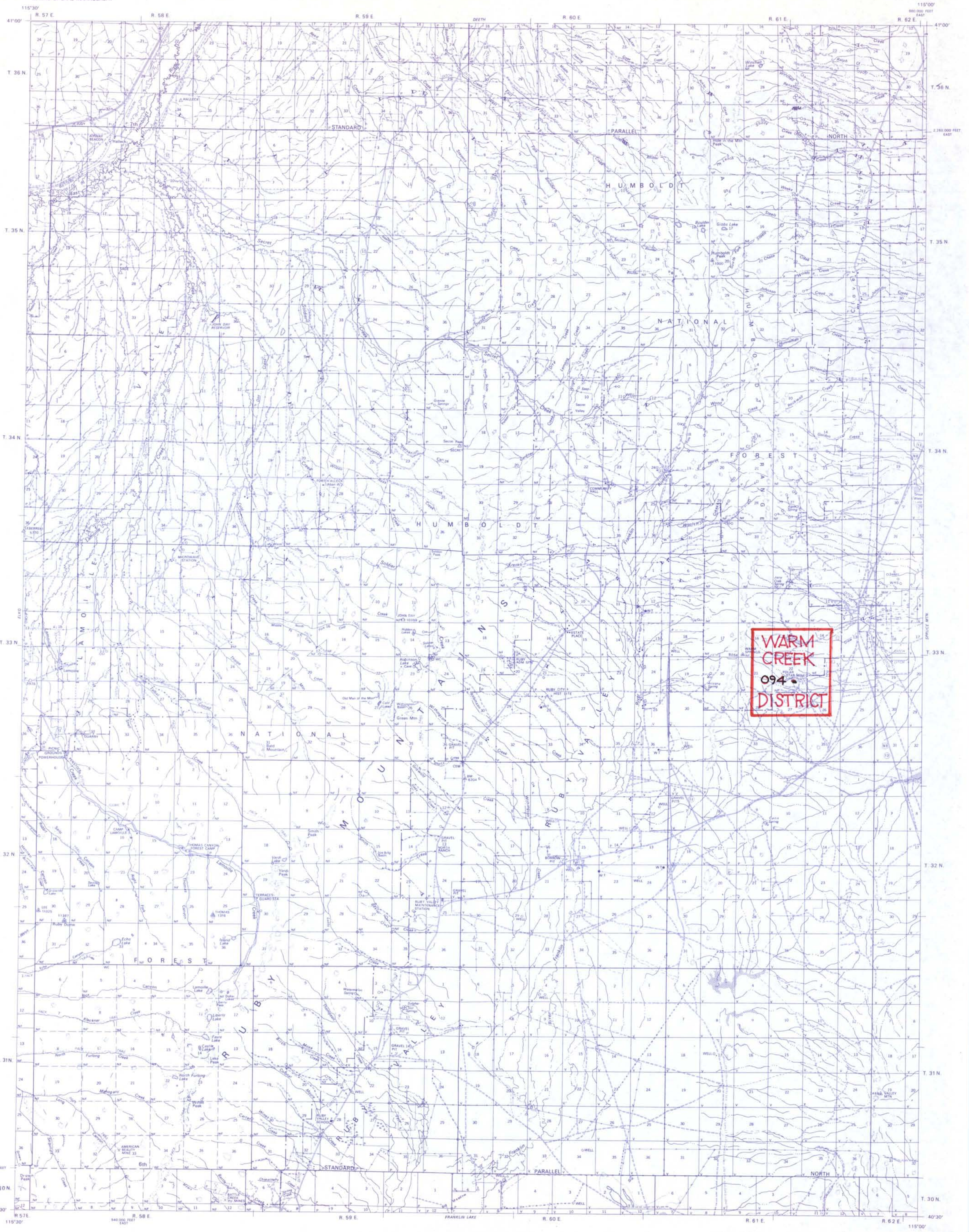


GOOSE CREEK, NEVADA
41-114-1

NBMG 81-3+4E

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HALLECK, NEVADA
30 MINUTE SERIES



SOURCE MATERIAL DATA

(A) U.S.G.S. Quad Maps
(B) U.S.F.S. Quad Maps
(C) B.L.M. Compilation
(D) State Highway Maps

Source Material Updated With Photography 1965 - 1969

SCALE: 1" = 1 MILE

REVISIONS	
PLANIMETRY	
STATUS	

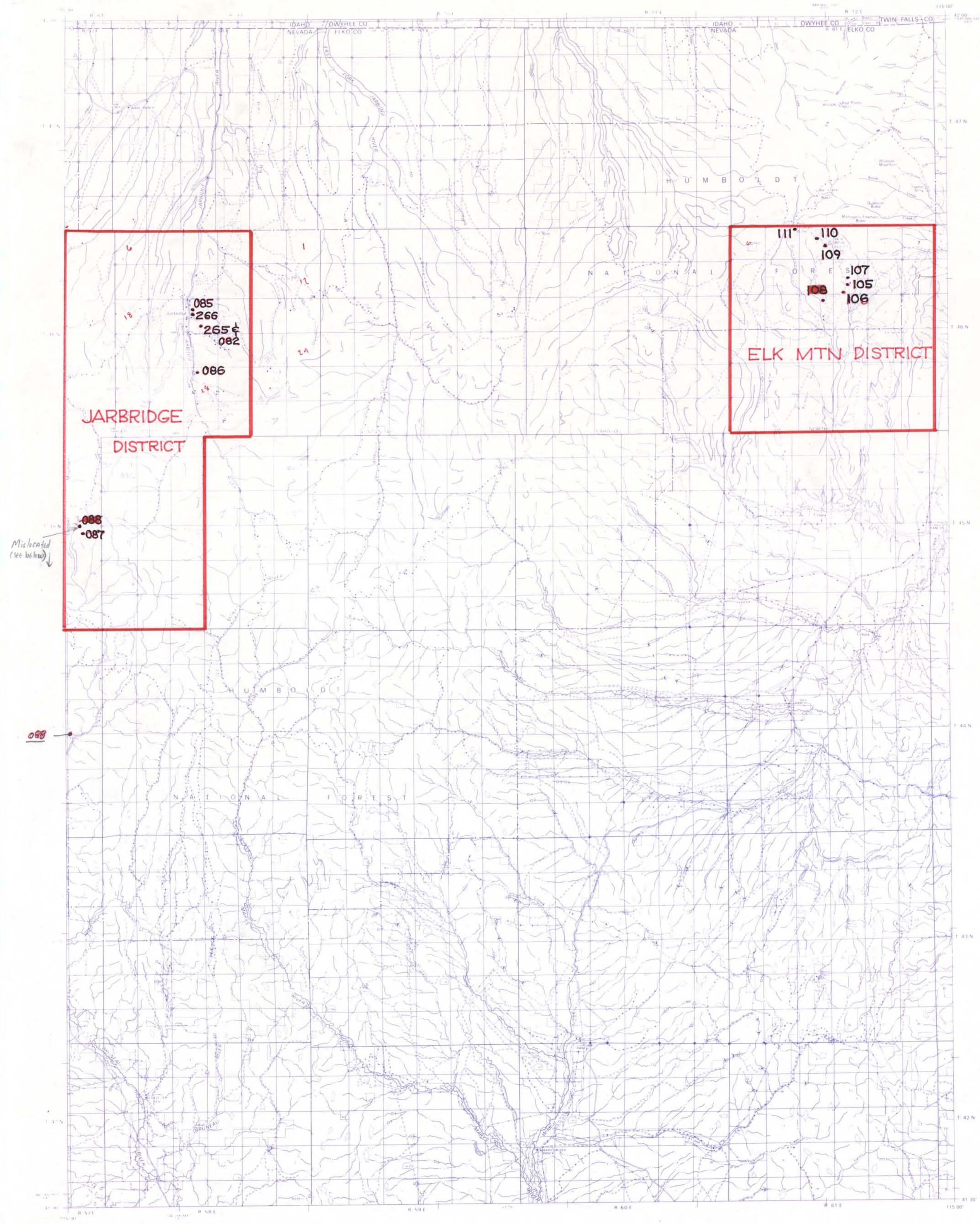
HALLECK, NEVADA
40-115.1
1970

NBMG 81+ 3+4F

NBMG 81-3+6

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

JARBIDGE NEVADA

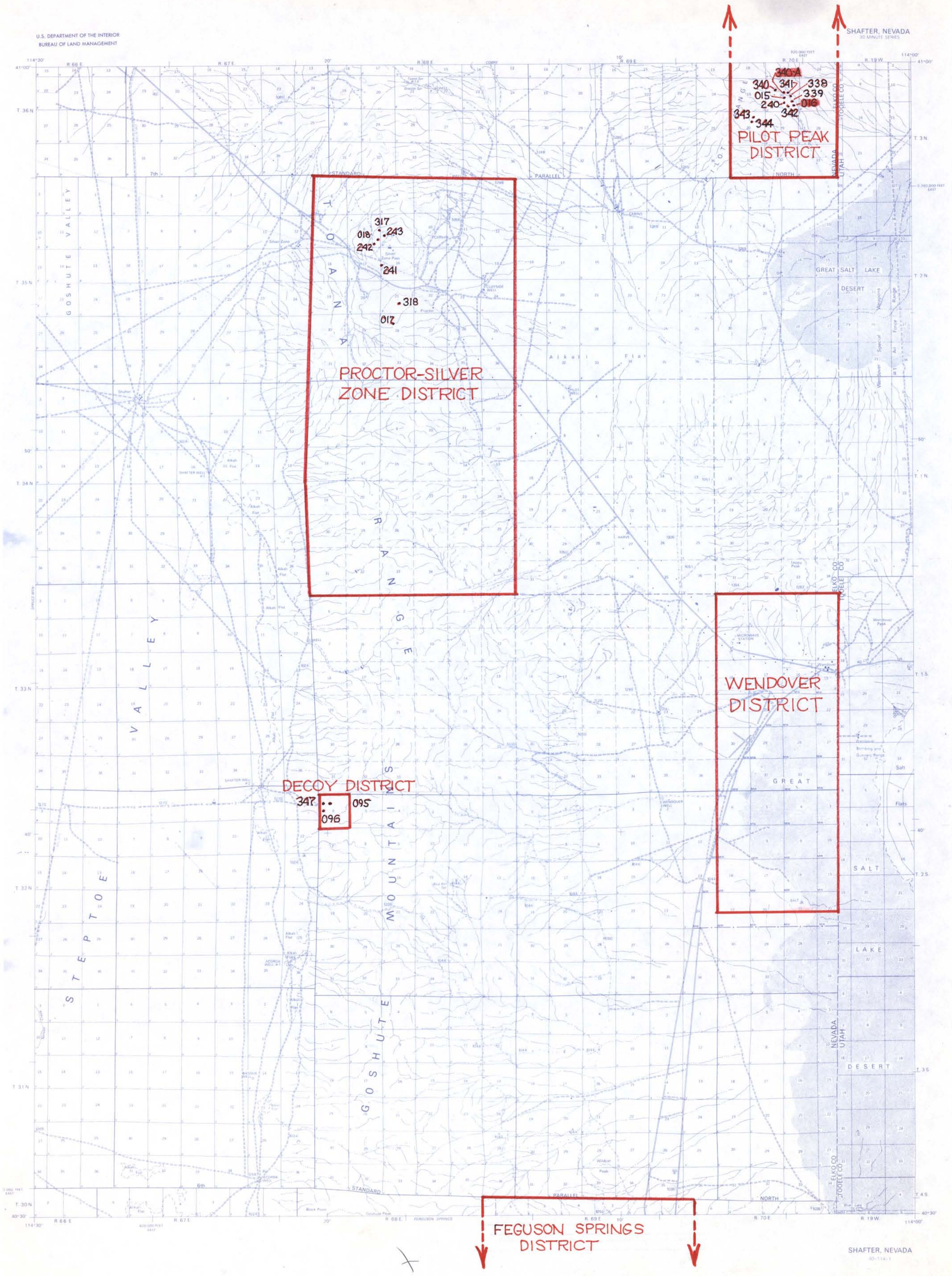


SCALE 1 : 1 MILE

REVISIONS

JARBIDGE, NEVADA

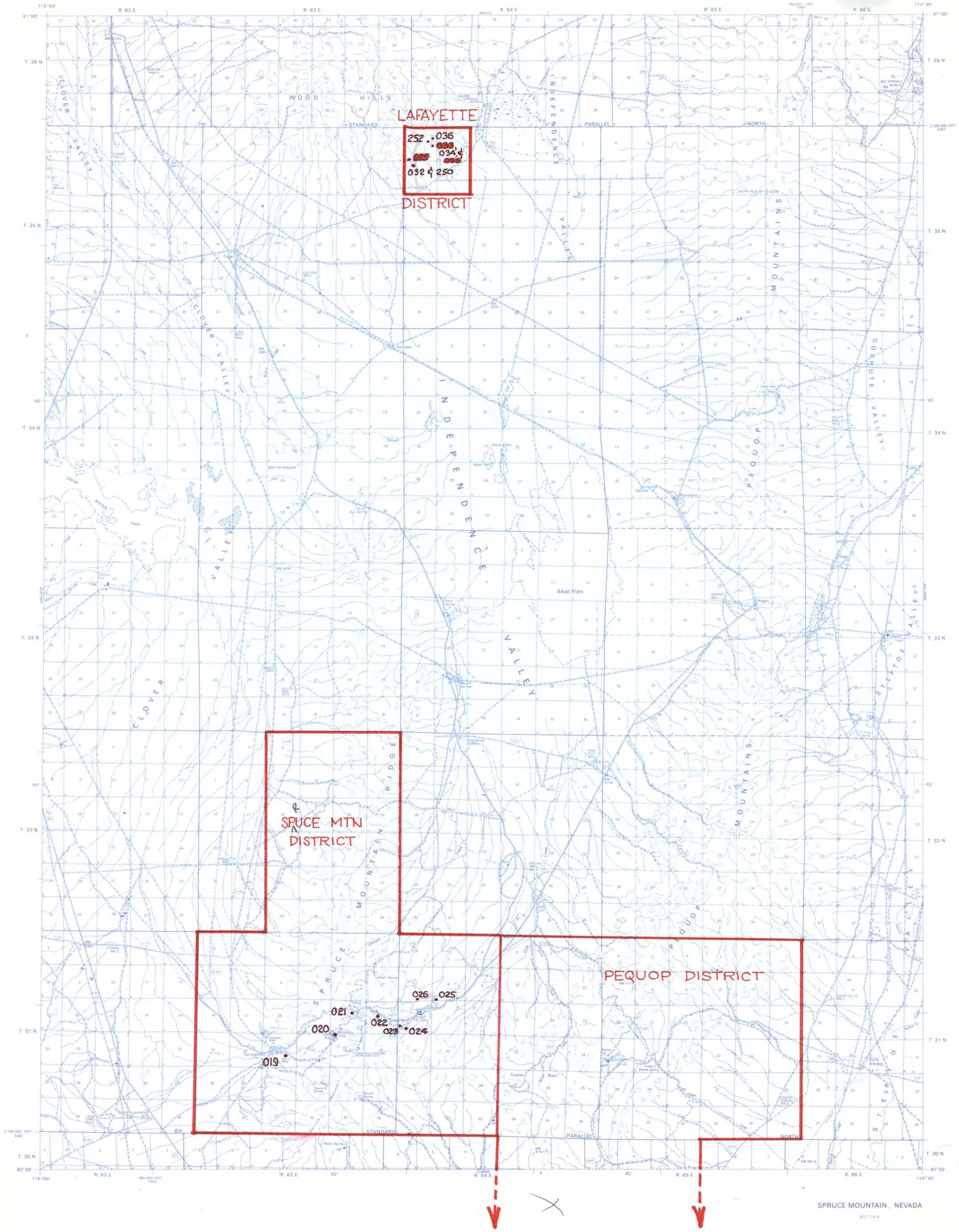
1969


U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
SHAFTER, NEVADA
30 MINUTE SERIES
PILOT PEAK DISTRICT
340-A
340
341
338
339
015
240
016
342
343
344
PROCTOR-SILVER ZONE DISTRICT
317
018
243
242
241
318
017
WENDOVER DISTRICT
DECOY DISTRICT
347
095
096
FEGUSON SPRINGS DISTRICT
GOSHUTE VALLEY
STEPTOE VALLEY
GOSHUTE MOUNTAINS
GREAT SALT LAKE DESERT
NEVADA
UTAH
ELKO CO
TOOELE CO
STANDARD PARALLEL NORTH
SHAFTER, NEVADA

NBMG 81-324H

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SPRUCE MOUNTAIN, NEVADA
30 MINUTE SERIES

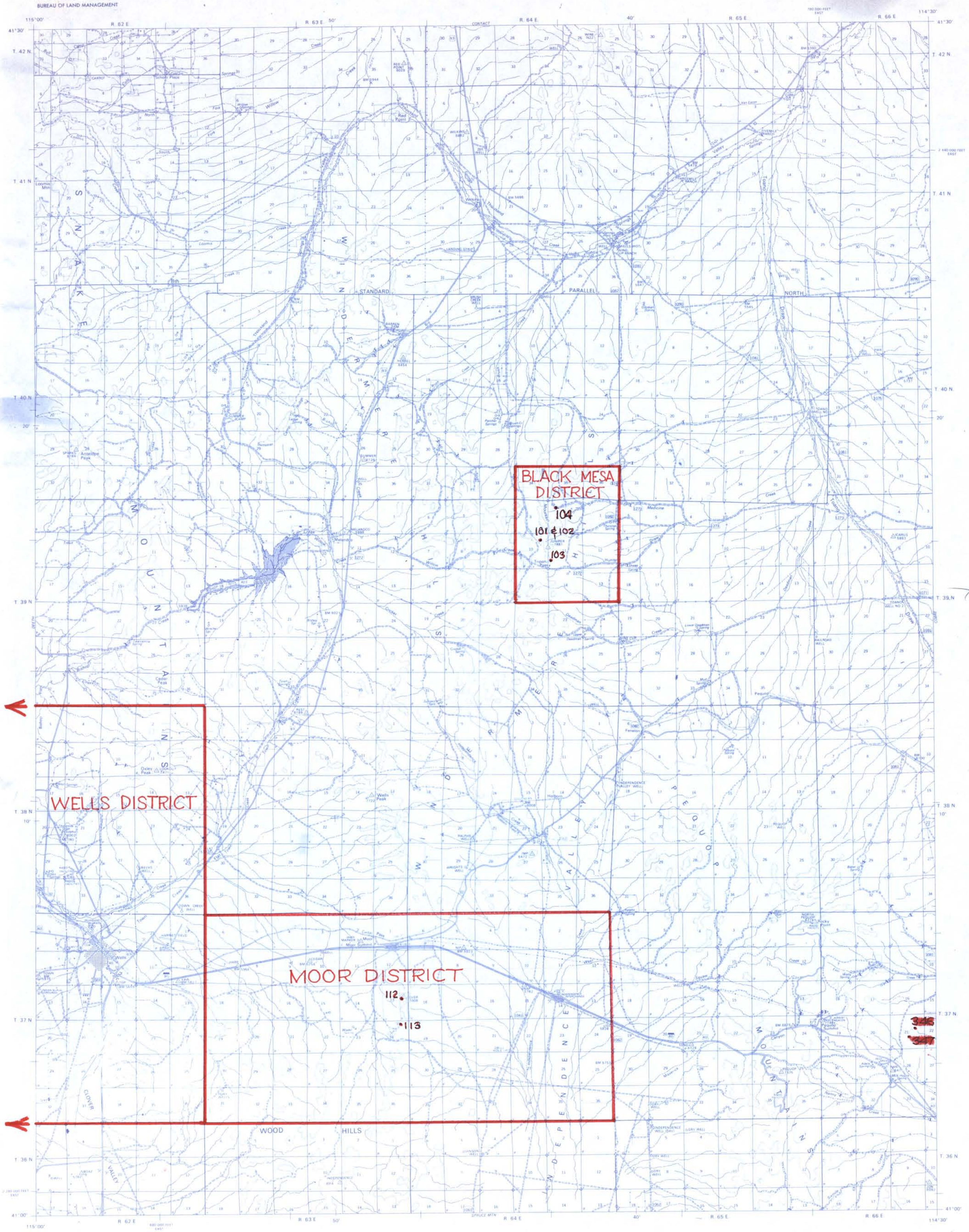


SPRUCE MOUNTAIN, NEVADA
40-114-4

NBMG 81-3+4I

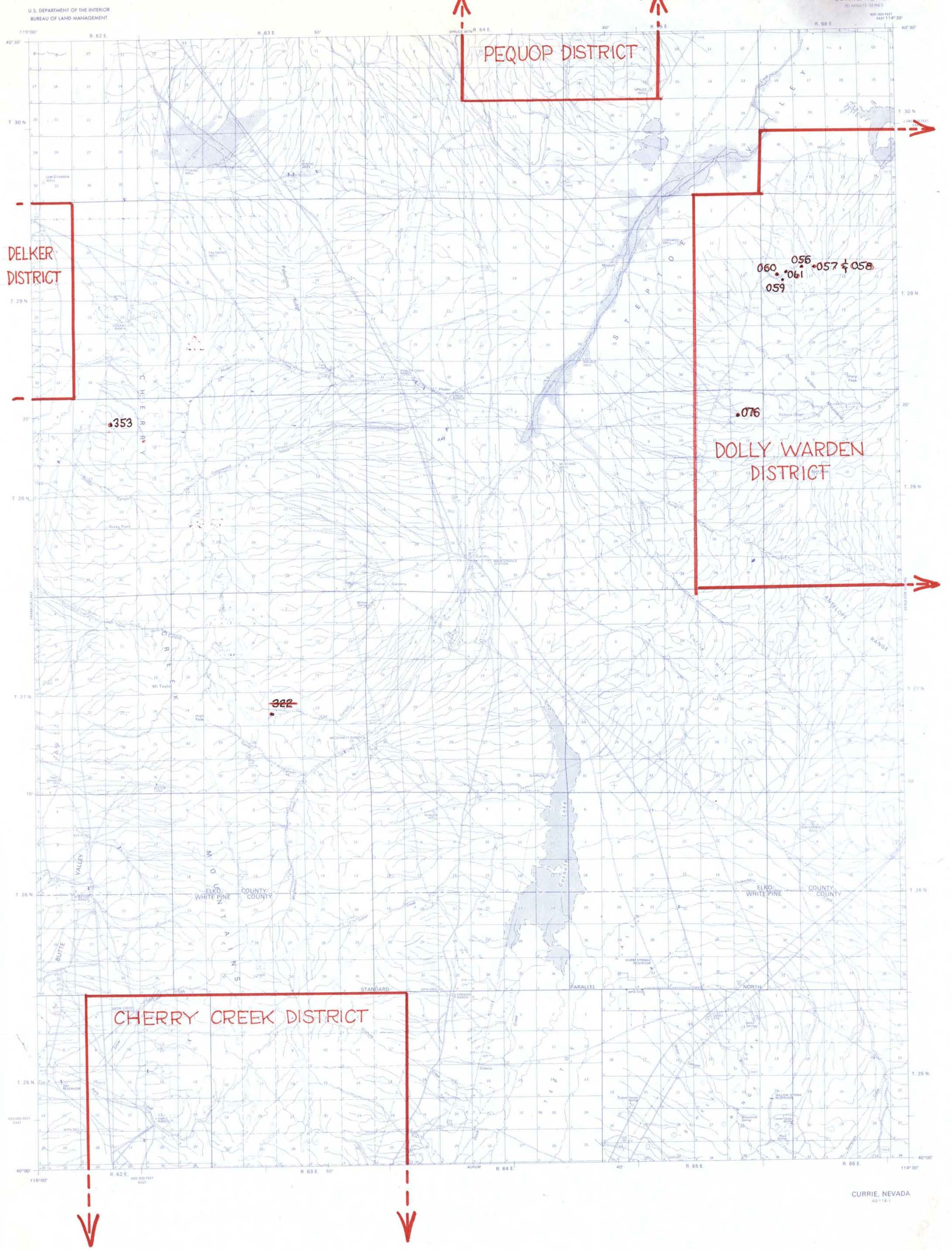
U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

WELLS, NEVADA
30 MINUTE SERIES



WELLS, NEVADA
41-114-3

NBMG 81-3+4J
wells


U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
PEQUOP DISTRICT
DELKER DISTRICT
DOLLY WARDEN DISTRICT
CHERRY CREEK DISTRICT
353
322
076
056
057 & 058
060
061
059
T. 30 N.
T. 29 N.
T. 28 N.
T. 27 N.
T. 26 N.
T. 25 N.
R. 62 E.
R. 63 E.
R. 64 E.
R. 65 E.
R. 66 E.
ELKO COUNTY
WHITE PINE COUNTY
CURRIE, NEVADA

NBMG 81-3+4K