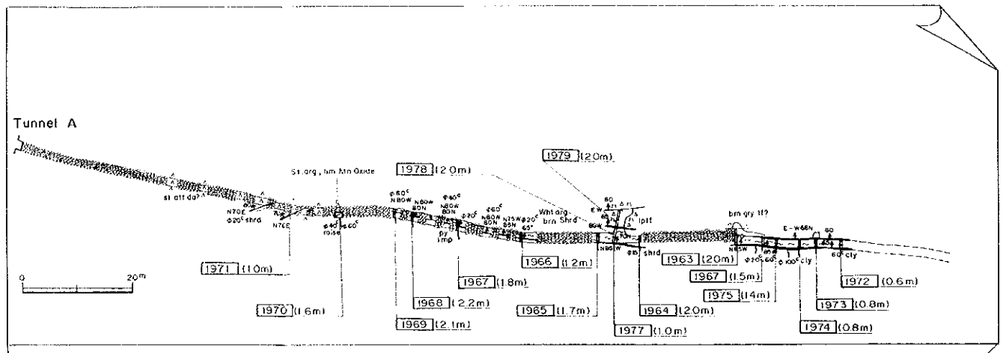
Appendix 10

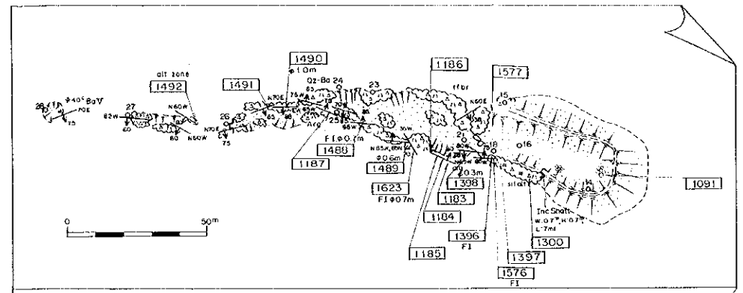
Assay Results of Ore Samples

Serial No.	Sample No.	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Ba ppm	Sn ppm
1	1090 IAR	13	118.7	16	7,515	2,249	<5	<5	490	3	1,276	<5
2	1091 IAR	46	48.5	5	4,798	1,118	365	<5	80	3	1,777	<5
3	1183 OAA	2	437.0	73	7,412	209	9	<5	400	9	2,394	<5
4	1186 OAA	2	295.0	29	5,437	829	68	<5	270	2	4,768	<5
5	1298 YSS	136	890.0	213	66,600	1,916	71	<5	320	6	55	<5
6	1299 YSS	10	315.0	535	2,395	5,757	241	15	2,420	2	5,350	<5
7	1396 MML	3	877.0	125	4,400	2,834	22	<5	360	2	6,585	<5
8	1398 MML	<2	240.0	92	5,198	611	33	<5	160	2	1,466	<5
9	1399 MML	76	646.0	2,663	13,400	2,828	100	<5	270	5	78	<5
10	1486 FMS	<2	37.7	368	9,265	2,985	7	<5	300	1	4,448	<5
11	1489 FMS	<2	251.0	159	2,585	898	12	<5	70	2	5,169	<5
12	1490 FMS	7	399.0	75	9,196	1,058	13	<5	110	6	4,721	<5
13	1492 FMS	24	287.0	61	25,000	4,503	61	<5	80	4	5,968	<5
14	1577 GQC	<2	13.3	44	925	3,400	49	<5	160	<1	4,988	<5
15	1609 TI	<2	<0.5	30	371	12,109	10	<5	450	3	2,143	<5
16	1611 TI	10	17.8	439	42,400	9,665	16	6	1,110	5	159	<5
17	1799 MH	<2	2,157.0	283	4,000	9,000	59	<5	930	2	9	<5
18	1931 KN	48	3.7	13,814	1,167	5,534	114	11	70	2	150	<5
19	1932 KN	846	10.3	38	94	33	129	91	10	15	1,410	18
20	1933 KN	2,970	24.2	34	130	10	224	371	10	26	2,876	43
21	1963 MH	2	12.6	21	9,500	4,383	191	<5	490	3	39	<5
22	1964 MH	5	25.0	43	2,456	3,628	115	<5	460	<1	472	<5
23	1965 MH	31	140.0	287	15,200	15,639	288	13	1,240	3	23	<5
24	1966 MH	21	24.2	55	2,904	7,801	859	11	1,670	<1	72	<5
25	1967 MH	2	44.7	128	1,325	2,243	121	<5	690	2	28	<5
26	1968 MH	8	39.0	65	2,281	4,528	259	6	560	2	21	<5
27	1969 MH	2	81.5	249	3,150	4,373	61	<5	1,100	1	30	<5
28	1973 MH	2	3.0	76	5,501	1,306	7	<5	400	<1	113	<5
29	1974 MH	<2	0.6	34	2,519	1,648	79	<5	150	<1	224	<5
30	1975 MH	<2	55.8	148	8,035	4,538	30	<5	490	3	134	<5
31	1976 MH	<2	6.9	174	11,300	2,825	44	<5	860	1	136	<5
32	1977 MH	<2	9.3	12	3,134	1,047	59	<5	530	4	86	<5

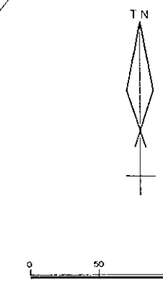
Appendix 10 Assay Results of Ore Samples



Sample No.		Au	Ag	Cu	Pb	Zn	As	Sb	Hg	Mo	Ba	Sn
		ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
1972	0.6m	<2	12	10	2,135	1,115	47	<5	410	2	334	<5
1973	0.8m	2	3	78	5,501	1,305	7	<5	490	<1	113	<5
1974	0.8m	<2	1	34	2,519	1,648	79	<5	150	<1	224	<5
1975	1.4m	<2	56	148	8,035	4,538	30	<5	860	1	136	<5
1976	1.5m	<2	7	174	11,300	2,825	41	<5	860	1	136	<5
1963	2.0m	2	13	21	9,500	4,383	191	<5	490	3	39	<5
1964	2.0m	5	25	43	2,456	3,623	115	<5	460	<1	472	<5
1977	1.0m	<2	9	12	3,134	1,047	59	<5	530	4	86	<5
1978	2.0m	<2	<0.5	4	140	1,852	<5	<5	100	<1	412	<5
1979	2.0m	<2	1	4	101	1,317	<5	<5	270	2	251	<5
1965	1.7m	31	140	287	15,200	15,838	288	13	1,240	3	23	<5
1968	2.2m	21	24	55	2,994	7,801	859	11	1,670	<1	72	<5
1967	1.8m	2	45	128	1,325	2,243	121	<5	690	2	28	<5
1968	2.2m	8	39	85	2,281	4,528	259	6	560	2	21	<5
1969	2.1m	2	82	249	3,150	4,373	61	<5	1,100	1	30	<5
1970	1.6m	2	8	31	590	3,021	61	<5	290	<1	97	<5
1971	1.0m	<2	2	11	228	837	38	<5	170	2	357	<5



Sample No.	Au	Ag	Cu	Pb	Zn	As	Sb	Hg	Mo	Ba	Sn
	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
1090	13	119	16	7,515	2,249	<5	<5	490	3	1,276	<5
1091	48	48	5	4,798	1,116	365	<5	80	3	1,777	<5
1183	2	437	73	7,412	209	9	<5	400	9	2,394	<5
1184	3	18	13	3,375	572	52	<5	130	1	4,008	<5
1185	2	124	29	1,958	518	24	<5	130	7	3,958	<5
1186	2	295	29	5,437	829	68	<5	270	2	4,766	<5
1187	4	153	240	2,740	1,149	21	<5	740	7	5,260	<5
1298	136	890	213	66,600	1,916	71	<5	320	6	55	<5
1299	10	315	535	2,385	5,757	241	15	2,420	2	5,350	<5
1300	<2	17	10	2,183	926	23	<5	70	8	3,225	<5
1396	3	577	125	4,400	2,834	22	<5	380	2	6,585	<5
1397	<2	4	4	213	1,097	51	<5	280	<1	4,048	<5
1398	<2	240	92	5,198	611	33	<5	180	2	1,466	<5
1399	76	646	2,663	13,400	2,828	100	<5	270	5	78	<5
1488	8	191	94	653	464	8	<5	50	8	3,787	<5
1489	<2	251	159	2,585	898	12	<5	70	2	5,169	<5
1490	7	399	75	9,196	1,058	13	<5	110	6	4,721	<5
1491	20	229	24	1,393	1,483	88	<5	90	4	3,715	<5
1492	24	287	61	25,000	4,503	61	<5	80	4	5,968	<5
1493	<2	7	6	82	3,801	<5	<5	20	1	3,349	<5
1494	<2	8	4	118	2,215	<5	<5	110	2	922	<5
1576	<2	583	14	650	331	6	<5	510	8	3,481	<5
1577	<2	13	44	925	3,400	49	<5	180	<1	4,986	<5
1578	3	17	90	975	951	289	<5	110	7	99	<5



PL-1

THE MINERAL EXPLORATION IN THE ORURO-UYUNI AREA REPUBLIC OF BOLIVIA

Geological Sketch
And
Sample Location Map
(Turaquiri District)

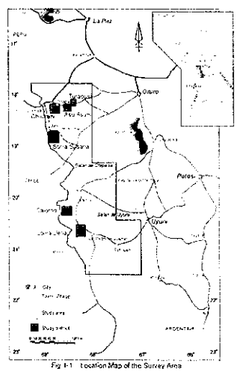


Fig 1-1 Location Map of the Survey Area

JAPAN INTERNATIONAL COOPERATION AGENCY
METAL MINING AGENCY OF JAPAN
MARCH 2000

TN

0 20m

19,547,100E

7,759,600N

Rio Agua Milagro

1910

N85E 80
goe goss
N35W 80
goe goss

TUNNEL

sand. gravel

part st-arg
goe goss
mod~st sil goe

1911

arg. sil goss
qz veinlets
goe goss

W:3~10cm
goe ▽, N80W

goe goss

1912
goe rich

N45E 65
N20E
bed.

Sample No.	Au (ppb)	Ag (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)	Sb (ppm)	Hg (ppm)	Mo (ppm)	Ba (ppm)	Sn (ppm)
1898	<2	<0.5	8	<3	19	64	<5	20	2	161	<5
1899	<2	<0.5	14	15	32	156	<5	30	2	107	<5
1900	<2	<0.5	17	42	67	200	<5	30	1	149	<5
1901	<2	<0.5	13	102	30	232	<5	30	1	192	<5
1902	<2	<0.5	12	82	30	254	<5	20	2	121	<5
1903	<2	<0.5	17	245	34	347	<5	20	2	270	<5
1904	<2	<0.5	14	78	32	236	<5	30	<1	201	<5
1905	<2	<0.5	14	83	35	255	<5	20	<1	248	<5
1906	<2	<0.5	12	50	28	188	<5	40	<1	231	<5
1907	<2	<0.5	17	25	36	209	<5	20	<1	266	<5
1908	<2	<0.5	13	51	28	206	<5	30	<1	235	<5
1909	<2	<0.5	11	47	21	177	<5	40	1	181	<5
1910	<2	<0.5	10	19	22	168	<5	20	1	227	<5
1911	<2	<0.5	42	18	62	482	<5	20	<1	317	<5
1912	<2	<0.5	39	22	85	918	<5	10	2	142	<5

1898 1899 1900 1901 1902 1903 1904 1905 1906 1907 1908 1909

moderate goe
strongly argillized
50E w=0.3c wht cly ▽
moderate .strong
30W 22 w=0.5c opaly qz ▽
strong
moderate
85 N60W w=0.5c qz ▽
storongly limonitized
moderate lim goe

7,759,590N

TN

0 1 2 3 4 5m

19,547,130E

THE MINERAL EXPLORATION IN THE ORURO-UYUNI AREA REPUBLIC OF BOLIVIA

Geological Sketch And Sample Location Map (Calorno District)

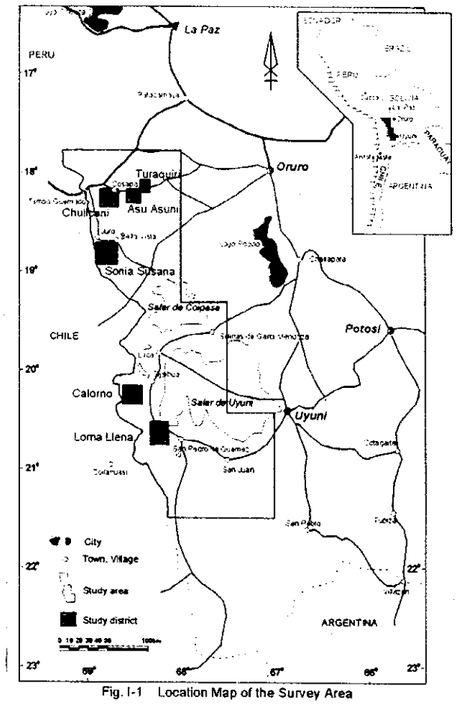
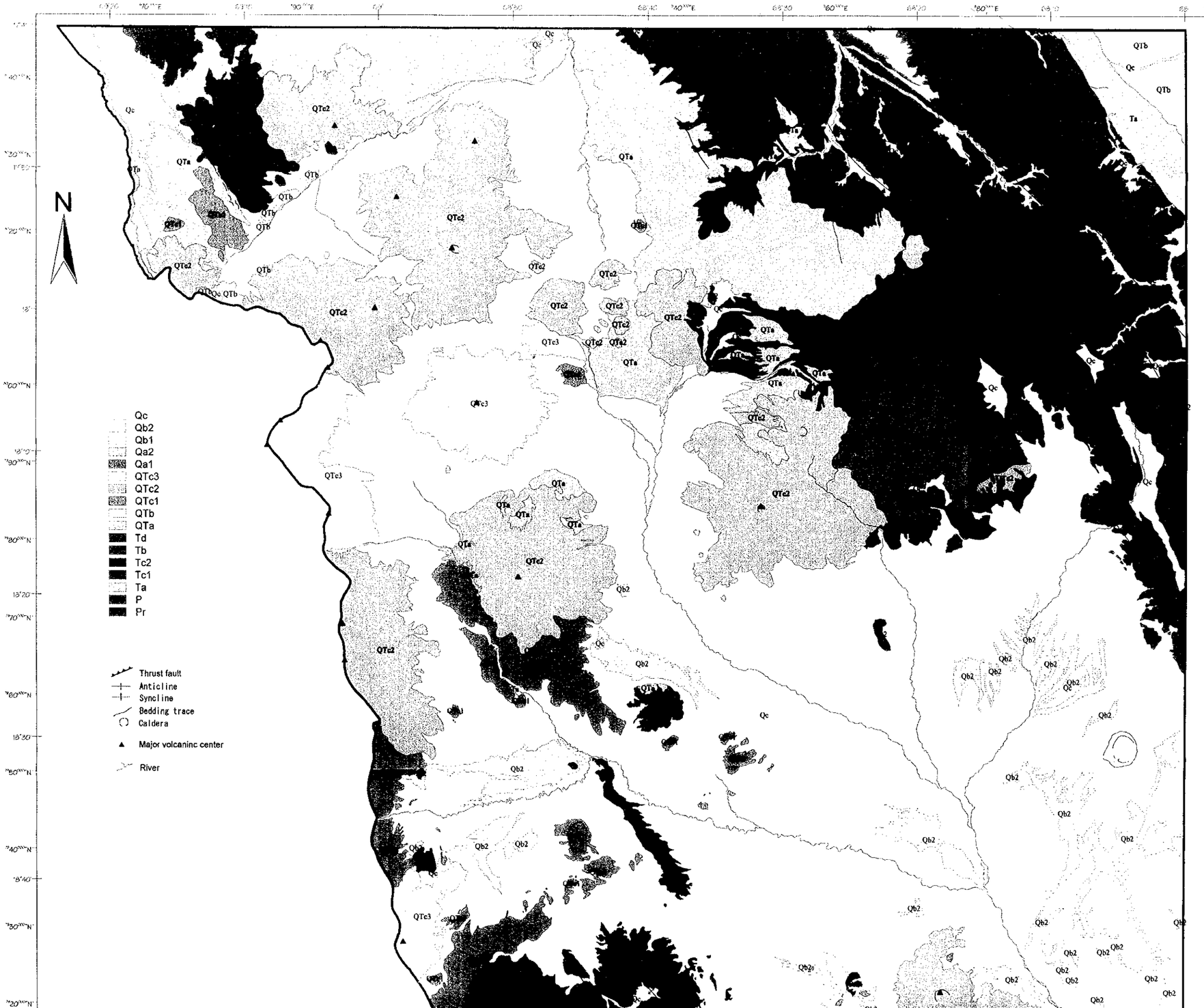


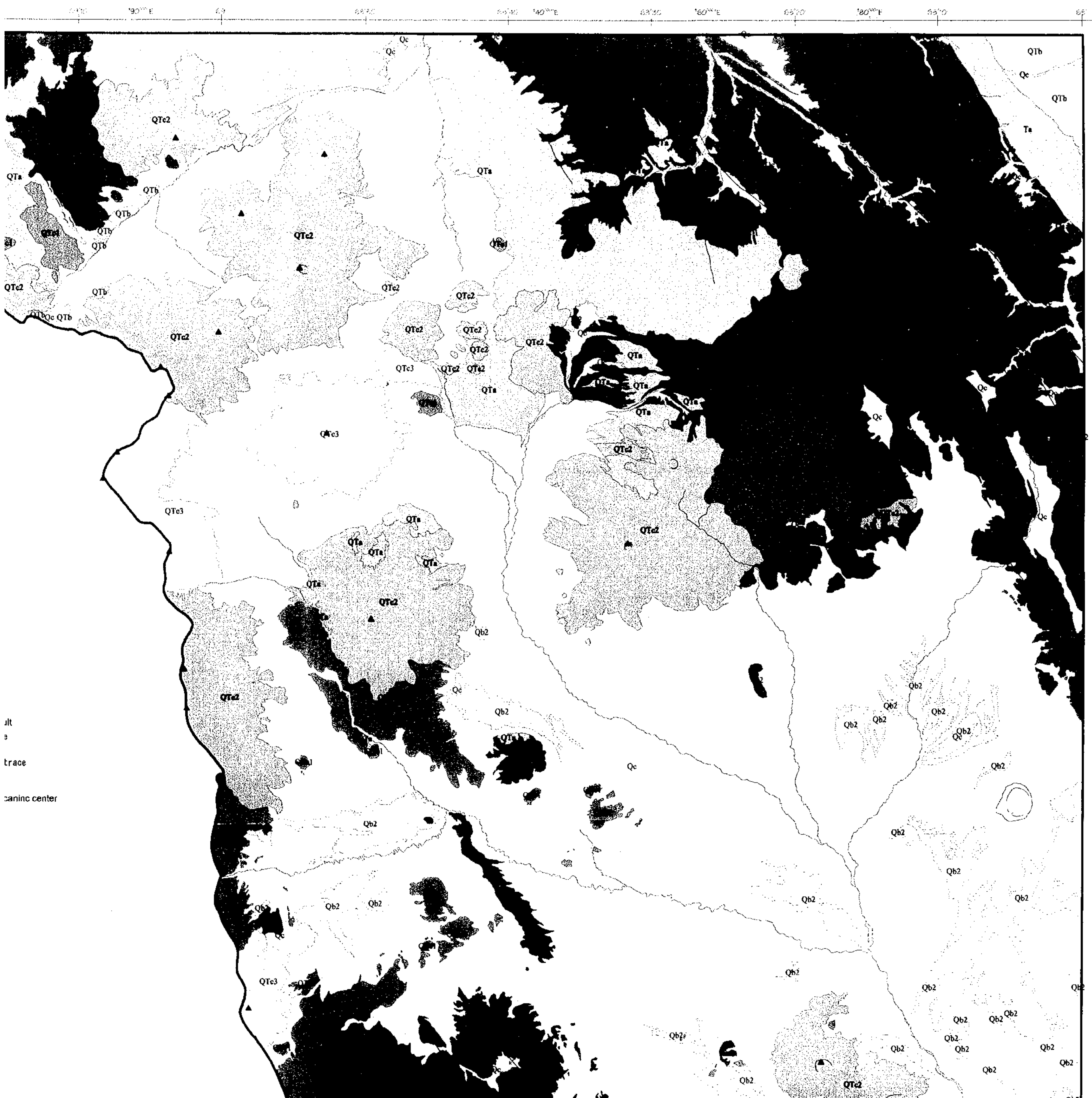
Fig. I-1 Location Map of the Survey Area

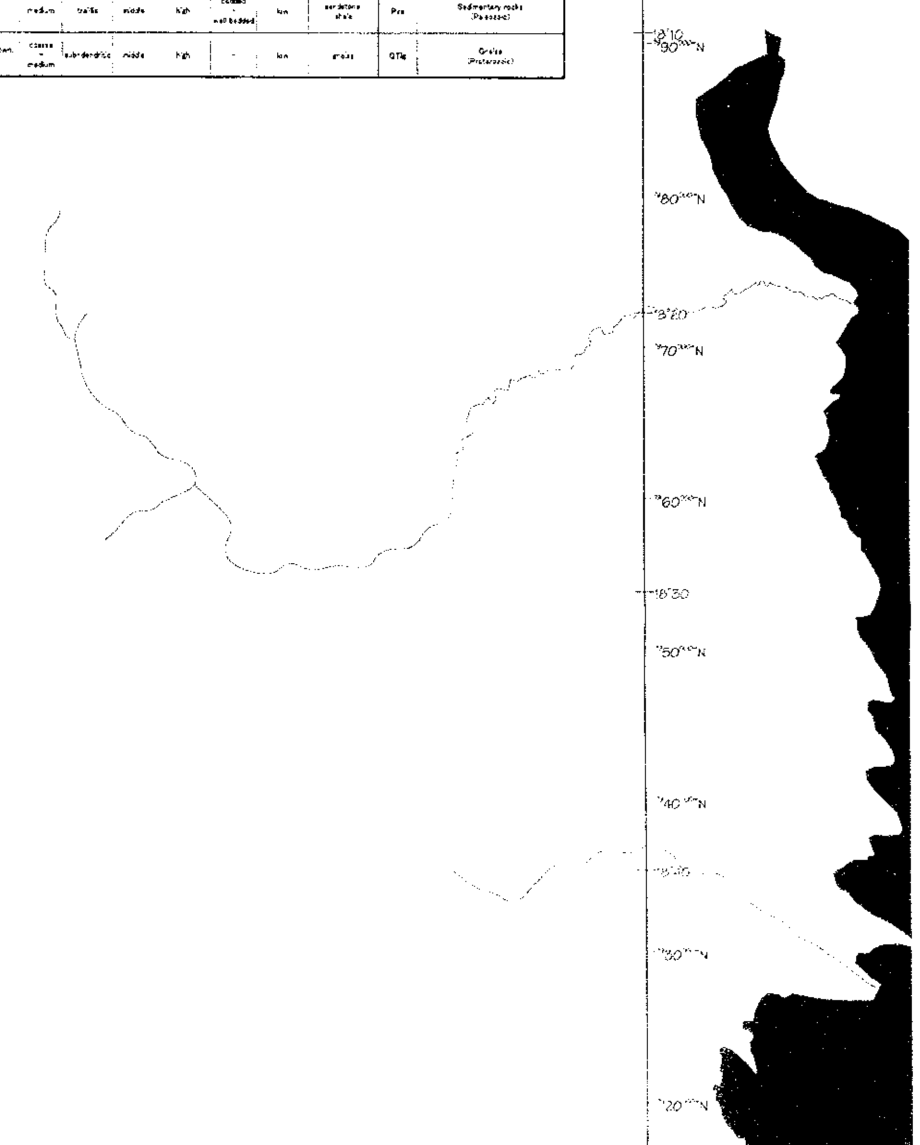
JAPAN INTERNATIONAL COOPERATION AGENCY
METAL MINING AGENCY OF JAPAN
MARCH 2000



List of geologic unit

GEOLOGIC UNIT	COLOR on LANDSAT TM Color Composite Image	TEXTURE	DRAINAGE PATTERN	DRAINAGE DENSITY	ROCK RESISTANCE	BEDDING	LINEAMENT DENSITY	LITHOLOGY	GEOLOGICAL CORRELATION (U.S. Geological survey Bulletin, 1972)	
Qa	brownish gray dark gray ~ light gray pale brown	fine	dichotomic - pendant	low - middle	low	-	rare	alluvium, talus deposit	Qua	Surficial deposits (Holocene and Pleistocene)
Qb2	white, light white, dark ~ pale brown	fine	dichotomic	low	low	-	-	sand	Qs	Soil deposits (Holocene and Pleistocene)
Qb1	white, light blue	fine	-	-	low	-	-			
Qa2	grayish brown brownish gray	medium	parallel - dendritic	middle - high	high	poor bedded	-	limestone	Ql	Lacustrine deposits (Qa2: Mochin Lacustrine) (Holocene and Pleistocene)
Qa1	yellow ish gray	fine	parallel - dendritic	middle - high	low	poor bedded	-	lake deposits		
QTc3	dark bluish gray dark green	coarse - medium	radial, sub-dendritic	low	high	-	low	andesite dacite	QTav	Systin Volcanic deposits (Holocene to Miocene)
QTc2	dark brown ~ brown dark gray	fine - medium	radial	low	high	-	low	andesite dacite		
QTc1	dark gray ~ gray brown	coarse - medium	sub-dendritic	middle - high	high	-	low	andesite dacite		
QTb	brownish gray ~ light gray yellowish gray	medium	parallel	high	middle	-	-	conglomerate, sandstone, shale	QTs	Sedimentary rocks (Pleistocene and Pliocene)
QTa	pale brown grayish brown	fine	parallel, dendritic, sub-dendritic	high	middle	-	-	pumice	QTg	Ignimbrite (Pleistocene to Miocene)
Td	brownish gray dark ~ light gray reddish brown	medium	sub-dendritic	middle	high	-	-	dacite	Ti	Intrusive rocks (Pliocene to Oligocene)
Tc2	dark ~ pale brown dark ~ light gray yellowish brown	medium	parallel, dendritic, sub-dendritic, pinnate, radial	middle - high	high - middle	poor bedded - well bedded	low	volcanic rocks, pyroclastic rocks	Tvol Tig	Volcanic rocks, Pyroclastic rocks (Tc2: Tagus Formation, Mount Formation, Cabanglasan Formation, Murmansk Formation) (Tc1: Quezon Formation) (Miocene and Oligocene)
Tc1	pale brown	fine	sub-par, dendritic	high	middle	poor bedded	low	pumice		
Tb	dark gray, brown, yellowish brown	medium	parallel, dendritic	high	middle	poor bedded - well bedded	low	conglomerate, sandstone, shale	Tv2	Sedimentary rocks (Pliocene to Oligocene)
Ta	dark brown ~ brown, brownish gray	fine	parallel, dendritic	low - middle	middle	bedded - well bedded	low	conglomerate, sandstone, shale	Tsl	Sedimentary rocks (Oligocene to Paleocene)
P	brown, yellowish brown	medium	trellis	middle	high	bedded - well bedded	low	sandstone, shale	Pss	Sedimentary rocks (Paleocene)
Pr	light brown ~ brown, dark gray	coarse - medium	sub-dendritic	middle	high	-	low	gneiss	QTm	Gneiss (Proterozoic)





List of geologic unit

GEOLOGIC UNIT	COLOR on LANDSAT TM Color Composite Image	TEXTURE	DRAINAGE PATTERN	DRAINAGE DENSITY	ROCK RESISTANCE	BEDDING	LINEAMENT DENSITY	LITHOLOGY	GEOLOGICAL CORRELATION (U.S. Geological survey Bolivia, 1975)	
Qc	brownish gray dark gray ~ light gray pale brown	fine	dichotomic dendritic	low - middle	low	-	rare	alluvium, talus deposit	Qsu	Surficial deposits (Holocene and Pleistocene)
Qb2	white bluish white dark ~ pale brown	fine	dichotomic	low	low	-	-	salt	Qs	Salt deposits (Holocene and Pleistocene)
Qb1	blue light blue	fine	-	-	low	-	-			
Qa2	grayish brown brownish gray	medium	parallel dendritic	middle - high	high	poor bedded	-	limestone	Ql	Lacustrine deposits (Qa2: Mochin Limestone) (Holocene and Pleistocene)
Qa1	yellowish gray	fine	parallel dendritic	middle - high	low	poor bedded	-	lake deposits		
QTc3	dark bluish gray dark green	coarse - medium	radial subdendritic	low	high	-	low	andesite dacite	QTsv	Stratovolcano deposits (Holocene to Miocene)
QTc2	dark brown ~ brown dark gray	fine - medium	radial	low	high	-	low	andesite dacite		
QTc1	dark gray ~ gray brown	coarse - medium	subdendritic	middle - high	high	-	low	andesite dacite		
QTb	brownish gray ~ light gray yellowish gray	medium	pinnate	high	middle	-	-	conglomerate sandstone, shale	QTs	Sedimentary rocks (Pleistocene and Pliocene)
QTa	pale brown, grayish brown	fine	parallel, dendritic subdendritic	high	middle	-	-	ignimbrite	QTig	Ignimbrite (Perez tuff) (Pleistocene to Miocene)
Td	brownish gray dark ~ light gray, reddish brown	medium	subdendritic	middle	high	-	-	dacite	Ti	Intrusive rocks (Pliocene to Oligocene)
Tc2	dark ~ pale brown dark ~ light gray grayish green	medium	parallel dendritic subdendritic pinnate, radial	middle - high	high - middle	poor bedded - well bedded	low	volcanic rocks pyroclastic rocks	Tvd Tig	Volcanic rocks, Pyroclastic rocks (Tc2: Tapue Formation, Mauri Formation Carangas Formation Mumuntani Formation) (Tc1: Quemez Formation) (Miocene and Oligocene)
Tc1	pale brown	fine	rectangular, dendritic	high	middle	poor bedded	low	ignimbrite		
Tb	dark gray, brown, yellowish brown	medium	parallel, dendritic	high	middle	poor bedded - well bedded	low	conglomerate sandstone shale	Ts2	Sedimentary rocks (Pliocene to Oligocene)
Ta	dark brown ~ brown, brownish gray	fine	parallel, dendritic	low - middle	middle	bedded - well bedded	low	conglomerate sandstone, shale	Ts1	Sedimentary rocks (Oligocene to Paleocene)
P	brown, yellowish brown	medium	trellis	middle	high	bedded - well bedded	low	sandstone shale	Pzs	Sedimentary rocks (Paleozoic)
Pr	light brown ~ brown, dark gray	coarse - medium	subdendritic	middle	high	-	low	gneiss	QTlg	Gneiss (Proterozoic)

Ta
P
Pr

Thrust fault
Anticline
Syncline
Bedding trace
Caldera
Major volcaninc center
River

Study Area

Plate 3-2

UTM Zone 19K WGS 1984

SCALE 1:250,000

0 10 20 30 40 50 km

PLATE 3-1 Geologic Interpretation Map of LANDSAT TM Image

Salar de Coipasa

fault
ine
ne
g trace
a

volcaninc center

ea

UTM Zone 19K WGS 1984

SCALE 1:250,000

10 20 30 40 50 km

ologic Interpretation Map of LANDSAT TM Image

Salar de Coipasa

Qa2 Qb1 Qb2 Qc QTc2 QTc3 QTe1

Salar de Coipasa

Salar de Uyuni

N

Qc
Qb2
Qb1

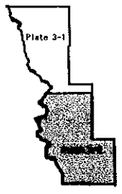
List of geologic unit

GEOLOGIC UNIT	SYMBOL on LANDSAT TM Color Composite Image	PLATE	DRAINAGE PATTERN	DRAINAGE DENSITY	ROCK RESISTANCE	BEDDING	EROSIONAL INTENSITY	LITHOLOGY	GEOLOGICAL CORRELATION (U.S. Geological Survey Folio, 1971)	
Qc	brownish gray, dark gray ~ light gray, pale brown	fine	dull-shaped, dendritic	low ~ middle	low		rare	alluvium, talus deposit	Qhol	Surficial deposits (Holocene and Pleistocene)
Qb2	white, bluish white, black ~ pale brown	fine	dendritic	low	low		-	salt	Qs	Salt deposits (Holocene and Pleistocene)
Qb1	blue, light blue	fine	-	-	low					
Qa2	greyish brown, brownish gray	medium	parallel, dendritic	middle ~ high	high	poor bedded	-	lacustrine	Q	Lacustrine deposits (Qa2 Minchin lacustrine) (Holocene and Pleistocene)
Qa1	yellowish gray	fine	parallel, dendritic	middle ~ high	low	poor bedded	-	lake deposits		
QTe3	dark brown, dark green	coarse ~ medium	radial, sub-dendritic	low	high	-	low	andesitic debris	QTer	Stratovolcanic deposits (Holocene to Miocene)
QTe2	dark brown ~ brown, dark gray	fine ~ medium	radial	low	high		low	andesitic debris		
QTe1	dark gray ~ gray, brown	coarse ~ medium	sub-dendritic	middle ~ flat	high		low	andesitic debris		
QTb	brownish gray ~ light gray, yellowish gray	medium	parallel	high	middle			conglomerate, sandstone, shale	QTs	Sedimentary rocks (Pliocene and Pliocene)
Qta	pale brown, grayish brown	fine	parallel, dendritic, sub-dendritic	high	middle	-	-	ignimbrite	QTig	Ignimbrite (Pliocene to Miocene)
Td	brownish gray, dark ~ light gray, reddish brown	medium	sub-dendritic	middle	high	-	-	dacite	Tl	Volcanic rocks (Pliocene to Oligocene)
Tc2	dark ~ pale brown, dark ~ light gray, greenish green	medium	parallel, dendritic, sub-dendritic, annular, radial	middle ~ high	high ~ middle	poor bedded, well bedded	low	volcanic rocks, pyroclastic rocks	Tpmd Tm	Volcanic rocks, Pyroclastic rocks (Tc2 Tupaz Formation, Mauri Formation, Chungara Formation, Mamiconia Formation) (Tc1 Quevara Fm)
Tc1	pale brown	fine	coherent, dendritic	high	middle	poor bedded	low	ignimbrite		
Tb	dark gray, brown, yellowish brown	medium	parallel, dendritic	high	middle	poor bedded, well bedded	low	conglomerate, sandstone, shale	Ts2	Sedimentary rocks (Pliocene to Oligocene)
Ta	dark brown ~ brown, brownish gray	fine	parallel, dendritic	low ~ middle	middle	bedded, well bedded	low	conglomerate, sandstone, shale	Ts1	Sedimentary rocks (Oligocene to Paleocene)
P	brown, yellowish brown	medium	tracks	middle	high	bedded, well bedded	low	sandstone, shale	Pre	Sedimentary rocks (Paleozoic)
Pc	light brown ~ brown, dark gray	coarse ~ medium	sub-dendritic	middle	high	-	low	gravel	QTg	Gravel (Pleistocene)

Qc
Qb2
Qb1
Qa2
Qa1
QTc3
QTc2
QTc1
QTb
QTa
Td
Tb
Tc2
Tc1
Ta
P
Pr

Thrust fault
Anticline
Syncline
Bedding trace
Caldera
Major volcaninc center
River

Study Area

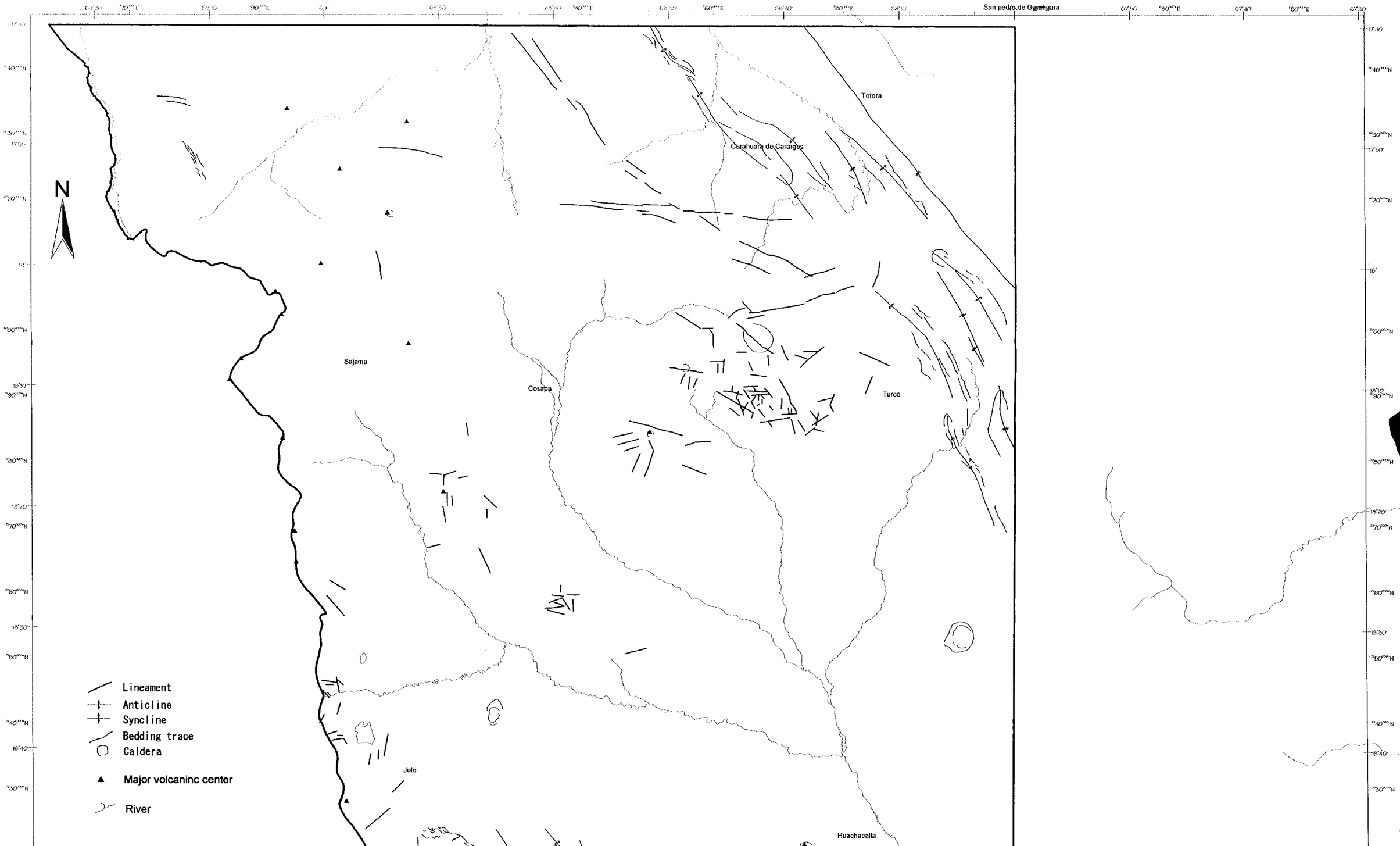


UTM Zone 19K WGS 1984

SCALE 1:250,000

0 10 20 30 40 50 km

PLATE 3-2 Geologic Interpretation Map of LANDSAT TM Image


San pedro de Curahuara
Totora
Curahuara de Carangas
Sajama
Cosapa
Turco
Julo
Huachacalla
N
Lineament
Anticline
Syncline
Bedding trace
Caldera
Major volcaninc center
River

Lineament
Anticline
Syncline
Bedding trace
Caldera

Major volcaninc center

River

Julo

Huachacalla

Escara

Sabaya

Sta. Ana de Chipaya

Concepcion Belen

Challacota

Coipasa

Salar de Coipasa

Study Area

UTM Zone 19K WGS 1984

SCALE 1:250,000

0 10 20 30 40 50 km

PLATE 4-1 Extracted Lineament Map of LANDSAT TM Image

Salar de Coipasa

Salar de Uyuni

N

Salinas de Garci Mendoza

Llica

Sisihua

San Pedro de Napa

Empexa

Chita

Colchani

San Pedro de Napa

Empexa

San pedro de Quemez

Martin Colcha K

Colchani

Coregidores

Rio Grande

Julaca

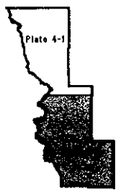
Chiguana

San Augustin

San Cristobal

Alota

Study Area



Lineament

Anticline

Syncline

Bedding trace

Caldera

Major volcaninc center

River

UTM Zone 19K WGS 1984

SCALE 1:250,000

0 10 20 30 40 50 km

PLATE 4-2 Extracted Lineament Map of LANDSAT TM Image

450 000 meters
460 000
470 000
480 000
490 000
500 000
510 000
520 000
530 000
540 000
550 000
560 000
570 000
580 000
590 000
600 000
610 000
620 000
630 000
640 000
650 000
8 040 000 meters
8 030 000
8 020 000
8 010 000
8 000 000
7 990 000
7 980 000
7 970 000
7 960 000
7 950 000
7 940 000
7 930 000
7 920 000

N

Tasora
Curahuara de Carangas
Sajama
Cosapa
Turco
Huachacalla

Alteration zone

- Group 1 : Indication of Clay, Carbonate minerals
- Group 2 : Indication of Iron oxide Minerals
- Group 3 : Indication of both Group 1 and 2
- Snow covered area

- Rail Way
- Road
- River

480 000 490 000 500 000 510 000 520 000 530 000 540 000 550 000 560 000 570 000 580 000 590 000 600 000 610 000 620 000 630 000 640 000 650 000 660 000 metera

17°40'

8 040 000 metera

8 030 000

17°50'

8 020 000

8 010 000

18°00'

8 000 000

18°10'

7 990 000

18°20'

7 970 000

7 960 000

18°30'

7 950 000

7 940 000

18°40'

7 930 000

18°50'

Tolora

Cuenca de Cuenca

Cuenca de Calenga

Sayama

Cosaca

Tunja

Huachacala

Tuja

ıtion zone

ication of Clay, Carbonate minerals

ication of iron oxide Minerals

lication of both Group 1 and 2

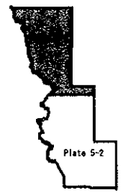
area

Alteration zone

- Group 1 : Indication of Clay, Carbonate minerals
- Group 2 : Indication of Iron oxide Minerals
- Group 3 : Indication of both Group 1 and 2
- Snow covered area

- Rail Way
- Road
- River

Study Area



SCALE 1:250,000

0 10 20 30 40 50 km

Salar de Coipasa

PLATE 5-1 Extracted Alteration Map of LANDSAT TM Image

7 940 000
7 930 000
7 920 000
7 910 000
7 900 000
7 890 000
7 880 000
7 870 000
7 860 000
7 850 000
7 840 000 meters

450 000 meters
460 000
470 000
480 000
490 000
500 000
510 000
520 000
530 000
540 000
550 000
560 000
570 000
580 000
590 000
600 000
610 000
620 000
630 000
640 000
650 000

ion zone

:ion of Clay, Carbonate minerals

:ion of Iron oxids Minerals

:ion of both Group 1 and 2

SCALE 1:250,000

20 30 40 50 km

Salar de Coipasa

icted Alteration Map of LANDSAT TM Image

69°10 69° 68°50 68°40 68°30 68°20 68°10 68° 67°50 67°40 67°30

480 000 490 000 500 000 510 000 520 000 530 000 540 000 550 000 560 000 570 000 580 000 590 000 600 000 610 000 620 000 630 000 640 000 650 000 660 000 meters

7 970 000 7 960 000 7 950 000 7 940 000 7 930 000 7 910 000 7 900 000 7 890 000 7 880 000 7 870 000 7 860 000 7 850 000 7 840 000 meters

Salar de Coipasa

Salar de Uyuni

N

UY

Study Area

Plate 5-1

Plate 5-2

Alteration zone

- Group 1 : Indication of Clay, Carbonate minerals
- Group 2 : Indication of Iron oxide Minerals
- Group 3 : Indication of both Group 1 and 2
- Snow covered area

- Rail Way
- Road
- River

SCALE 1:250,000

0 10 20 30 40 50 km

PLATE 5-2 Extracted Alteration Map of LANDSAT TM Image

UY

7 760 000 7 750 000 7 740 000 7 730 000 7 720 000 7 710 000 7 700 000 7 690 000 7 680 000 7 670 000 7 660 000 7 650 000 7 640 000 7 630 000 7 620 000 meters

520 000 meters 530 000 540 000 550 000 560 000 570 000 580 000 580 000 600 000 610 000 620 000 630 000 640 000 650 000 660 000 670 000 680 000 690 000 700 000 710 000 meters

68°40' 68°30' 68°20' 68°10' 68° 67°50' 67°40' 67°30' 67°20' 67°10' 67°