

1～2個のケースもあるので注意を要する。また地化学探査の異常では分析品位の記載が無い場合が多い。

本調査地域内では金：126箇所、銀：46箇所、銅：207箇所、鉛：52箇所及び亜鉛：10箇所の鉱徴地が抽出された。

これらの図幅と報告書から金、銀、銅、鉛及び亜鉛の鉱床・鉱徴地を抽出し、その位置を縮尺1：1,000,000のスケールの図幅にまとめたものがPL. II-1である。また鉱徴地一覧表としてTable II-1-1に示した。表には鉱徴地位置図(PL. II-1)中の位置、出典報告書の著者と年(または調査者と調査年)、品位及び地質と産状等を略記した。

#### 1-4 解析図

既存資料を総合的に検討し、鉱徴地集中地域を抽出するために地質と鉱床・鉱徴地を地質概略図上にプロットしたものを解析図としてPL. II-2に示す。また、地質的な考察を加え、鉱床賦存のポテンシャルの高い地域を抽出した図面としてPL. II-3に示す金鉱徴地集中地域抽出図を作成した。

#### 1-5 金鉱徴地集中地域

金鉱床及び鉱徴地を縮尺1：500,000の地質図上にプロットした図面及び鉱床・鉱徴地一覧表から選んだ金鉱徴地の集中した地域は次の通りである(PL. II-3及びTable II-1-1参照)。

##### (1) ツァガンオボー地区

[Tsagaan Ovoo Area (Au)]

当地区には金の鉱徴地6箇所、銀の鉱徴地5箇所、銅の鉱徴地3箇所鉛の鉱徴地1箇所が記載されているが、金の鉱徴地4箇所(No.3, 4, 5, 9)以外には見るべきものがない。地質はおもに二畳紀の堆積岩類、酸性～中性火山岩類及び花崗岩類からなっている。

##### (2) ウルズイットーグルバンサイハン地区

[Ulziit-Gurvansaihan Area (polymetal)]

当地区には金の鉱徴地10箇所、銀の鉱徴地4箇所、銅の鉱徴地5箇所、鉛の鉱徴地6箇所が記載されているが、すべて品位が低い。従って当地区には鉱徴地の数は多いが鉱床賦存の有望性の順位は低いと思われる。地質はおもに原生代の後期の石灰岩、古生代中期の堆積岩類、古生代後期の酸性深成岩類及び酸性～中性火山岩類、白亜紀の堆積岩類など種々の岩石から成っている。

##### (3) ナランギンフドックーツァガンスブラグ地区

[Narangin Huduk-Tsagaansubraga Area (Cu, Au)]

当地区には金の鉱徴地2箇所、銀の鉱徴地3箇所、銅の鉱徴地49箇所、鉛の鉱徴地1箇所が記載されているが、当地区にはShuten (No.9, 13)を初め、Tsugaansubraga (No.9), Narinhuduk

(No.332), Naranginhuduk (No.313), Mandah (No.273) などの斑岩銅鉱床が発見されている。銅鉱徴地の多くは斑岩銅型鉱徴と考えられる。地質はおもに石炭紀～二畳紀～二畳紀の酸性深成岩類, 酸性～中性火山岩類及び堆積岩類, シルル紀デボン紀の緑色岩, 白亜紀の堆積岩類などから成っているが, 斑岩銅鉱床は石炭紀～二畳紀の火成活動に関係している。

(4) イッシェンハイ地区

[Ih Shanhai Area (Cu, Au)]

当地区には金の鉱徴地1箇所, 銀の鉱徴地2箇所, 銅の鉱徴地9箇所が記載されているが, 銅の鉱徴地はIh Shanhai (No.51, 53, 55) を初めとする斑岩銅型鉱徴地である。地質は主として石炭紀～二畳紀の酸性深成岩類, 酸性～中性火山岩類, 堆積岩類などから成っているが斑岩銅鉱床は石炭紀～二畳紀の火成活動に関係している。

(5) ハルマグタイ地区

[Harmagtai Area (Cu, Au)]

当地区には金の鉱徴地3箇所, 銀の鉱徴地1箇所, 銅の鉱徴地17箇所, 鉛の鉱徴地2箇所及び亜鉛の鉱徴地1箇所が記載されているが, 銅の鉱徴地はHarmagtai (No.374), Uhaa Huduk (No.377), Duchin Ural (No.350) などの斑岩銅鉱床型鉱徴地である。地質は主として, シルル紀～デボン紀の堆積岩類, 石炭紀～二畳紀の酸性深成岩類, 酸性～中性火山岩類, 堆積岩類, 白亜紀の堆積岩類などからなっているが斑岩銅鉱床は石炭紀～二畳紀の火成活動に関係がある。

(6) オロンオボートマンライ地区

[Olon Ovoot-Manlay Area (Au)]

当地区にはオロンオボート鉱床 (No.177) を初めとする金の鉱徴地35所, 銀の鉱徴地2箇所, 銅の鉱徴地12箇所, 鉛の鉱徴地1箇所が報告されている。金鉱徴地の多くは含金石英脈の鉱徴地である。地質は主としてシルル紀～デボン紀の堆積岩類, 石炭紀～二畳紀の堆積岩類, 酸性深成岩類, 酸性～中性の火山岩類, 白亜紀の堆積岩類などから成っているが, 金の鉱化作用は石炭紀～二畳紀の火成活動に関係がありそうである。

(7) バヤンホンゴル地区

[Bayanhongor Area (Au)]

当地区では金の鉱徴地25箇所, 砂金の鉱徴地1箇所, 銀の鉱徴地6箇所, 銅の鉱徴地5箇所が報告されているが金の鉱徴地の約半分は含金石英脈である。地質は主として原生代後期の堆積岩類及び超塩基性岩類, カンプリア紀の花崗岩類, 二畳紀の酸性深成岩類及び酸性～中性火山岩類などからなっている。

(8) ボォグド地区

[Bogd Area (Cu, Au)]

当地区には金の鉱徴地5箇所, 銀の鉱徴地1箇所, 銅の鉱徴地8箇所, 鉛の鉱徴地1箇所が報告されているが, 金の鉱徴地の鉱床タイプはいろいろである。地質は主として原生代後期の石灰

岩及び中性～塩基性火山岩類，二畳紀の花崗岩類及び酸性～中性火山岩類，ジュラ紀～白亜紀の酸性火山岩類，白亜紀の堆積岩類などからなっている。

(9) バヤンゴビ地区

[Bayan Govi Area (Cu, Au)]

当地区には金の鉱徴地18箇所，銀の鉱徴地5箇所，銅の鉱徴地16箇所が報告されているが，金の鉱徴地の大部分は含金石英脈，銅の鉱徴地の多くは含銅石英脈である。地質は主としてシルル紀の堆積岩類，デボン紀堆積岩類（含石灰岩），石炭紀～二畳紀堆積岩類及び花崗岩類，ジュラ紀～白亜紀の堆積岩類などから成っている。

(10) ネメグト山地区

[Mt. Nemegt Area (gold placer)]

当地区では金の鉱徴地3箇所及び砂金の鉱徴地5箇所が報告されている。地質は主としてシルル紀の変玄武岩，石炭紀の花崗岩類及び中性～塩基性火山岩類，白亜紀の堆積岩類などからなっている。

Table II-1-1 List of ore deposits and showings in the survey area (1)

L-47-B

A u		A u t h o r		A s s a y		G e o l o g y & o c c u r e n c e	
No	Dep. No	Ref.	Locat	Year	Reg. No		
1	176	*125	III-3 Геологич МНР	1974	1683		Placer gold deposit in alluvial fan (Pliocene)
A g		A u t h o r		A s s a y		G e o l o g y & o c c u r e n c e	
No	Dep. No	Ref.	Locat	Year	Reg. No		
1	4	157	I-3 Раузер	1987		Ag: 15g/t, Cu: 0.06%, Bi, As: 0.005%	Quartz vein in granite (M. Permian)
C u		A u t h o r		A s s a y		G e o l o g y & o c c u r e n c e	
No	Dep. No	Ref.	Locat	Year	Reg. No		
1	5	142	I-3 Турчинов	1976		Cu: 0.03-0.5%	Quartz vein
2	6	142	I-3 Раузер	1987		Ag: 30g/t, Cu: 0.8%, Mo: 0.01%	Quartz vein in granite (M.-L. Cambrian)
3	58	144	I-3 Благовравов	1988		Cu: 0.3%, Ag: 0.15g/t, Zn: 0.07%	Quartz vein in brecciated and silicified basic rock
4	61	144	I-3 Благовравов	1985		Cu: <1%	Silicified part in the shale (Uend-Cambrian)
5	64	144	I-3 Бээзунев	1961		Cu: <3%	Oxide Cu in brecciated rock (Uend-E. Cambrian)
6	65	*98	I-3 Турчинов	1976	2313	Cu: 0.14-1.05%	Quartz vein
7	122	146	II-3 Раузер	1987		Cu: 0.6% (max)	Quartz vein in shale (E.-L. Silurian)
8	123	146	II-3 Раузер	1987		Cu: 0.3%	Quartz vein in shale (L. Ordovician-E. Silurian)
9	140	*106	II-3	1974		Cu: <1%, Ag: 3g/t	
10	166	*109	III-3 Стенанов	1974	2079	Cu: 0.02-2.4%, Zn: 0.01-0.3%	

【 Legend for header of column 】

Dep. No : deposit or ore showing number  
 Ref. : page described in the collected report  
 Locat : location of ore showing in the map  
 at a scale of 1 to 1,000,000  
 Reg. No : registered no. of report

【 Legend for geology and occurrence 】

E. : Early, M. : Middle, L. : Late  
 Ss : sandstone  
 diss. : dissemination  
 py. : pyrite  
 Coy : chalcopyrite  
 Mo : molybdenum

Table II-1-1 List of ore deposits and showings in the survey area (2)

L-47-Г  
Au

No. Dep. No.	Ref.	Locat.	Author	Year	Reg. No.	Assay	Geology & Occurrence
1	2	268	Андреев	1970		Au:3.3g/t	
2	4	267	Андреев	1970		Au:0.2-4g/t	Carbonated rock (L.Ripheian)
3	5	267	Андреев	1970		Au:2.6g/t	Quartz vein in granite (M.-L.Cambrian)
4	7	267	Андреев	1970		Au:0.1g/t, Ag:0.6g/t	Quartz vein in marble (L.Ripheian)
5	8	267	Андреев	1970		Au:0.1g/t, Ag:2.8g/t	Quartz vein (W:1.5m) in shale (L.Ripheian)
6	12	267	Андреев	1970		Au:4.8g/t	Quartz vein in shale (Vend-E.Cambrian)
7	13	267	Заботкин	1988	4276	Au:0.2-2g/t	Silicified meta-shale (Vend-E.Cambrian)
8	17	268	Заботкин	1988	4276	Au:1-6pcs, grain size:0.05-1.5m/m	Quartz vein in metamorphic rock (Vend-E.Cambrian)
9	23	268	Заботкин	1988	4276	Au:5.3g/t	Placer gold deposit in the stream sediment
10	27	268	Заботкин	1988	4276	Au:0.1g/t	Zone (L:120m, W:5m) of quartz vein
11	29	268	Митев	1987		Au:0.03-0.08g/t	The 4 areas (0.0875-0.125km <sup>2</sup> ) of geochemical anomalies
12	30	269	Митев	1987		Au:0.02-0.14g/t	The 3 areas (0.68-0.75km <sup>2</sup> ) of geochemical anomalies
13	31	269	Войменко	1977		Au:1.5-2.5g/t	Silicified zone bearing limonite and hematite
14	32	269	Войменко	1977		Au:1.1-1.9g/t	Zone bearing limonite
15	33	269	Храпов	1984		Au:0.1g/t, Ag:1.3g/t	Shale (E.-M.Ripheian) in shale (E.-M.Ripheian)
16	34	269	Заботкин	1988	4276	Au:0.2-0.6g/t	Shale (E.-M.Ripheian) & conglomerate (Palaeozoic)
17	35	270	Заботкин	1988	4276	Au:1-12pcs, grain size:0.05-1m/m	Zone (36.3km <sup>2</sup> ) of geochemical anomaly
18	36	270	Заботкин	1988	4276	Au:1-30pcs, grain size:0.1-1.5m/m	Zone (50km <sup>2</sup> ) of geochemical anomaly
19	39	*211	Заботкин	1988	4276	Au:0.8-6.2g/t, Ag:16g/t	Quartz vein
20	41	270	Храпов	1984		Au:0.8g/t	Zone bearing hematite in granite (M.Permian)
21	42	270	Храпов	1984		Au:0.2-4.2g/t	Sulphide zone in diorite and porphyry
22	49	270	Заботкин	1988	4276	Au:0.3-5g/t	Quartz vein in contact zone with quartz diorite
23	52	271	Заботкин	1988	4276	Au:0.2-0.3g/t	Placer gold in gravel of terraces
24	55	*213	Заботкин	1988	4276	Au:0.1g/t	Placer gold deposit (1.88km <sup>2</sup> )
25	77	*214	Заботкин	1988	4276	Au:0.1-1.5g/t, Ag:1.5-3g/t	Quartz vein
26	84	271	Заботкин	1988	4276	Au:0.2g/t, Ag:0.6g/t	Quartz vein in sandstone (L.Ordovician-E.Silurian)
27	87	271	Заботкин	1988	4276	Au:0.01-0.2g/t, Ag:0.5-3.5g/t	Quartz vein in sandstone (L.Ordovician-E.Silurian)
28	89	271	Заботкин	1988	4276	Au:0.1-0.5g/t, Ag:3g/t	Quartz vein (L:50-250m, W:4m)
29	90	272	Заботкин	1988	4276	Au:0.12-0.3g/t, Ag:0.5-5g/t	Quartz vein (L:120m, W:12m)
30	91	272	Заботкин	1988	4276	Au:0.1-0.3g/t, Ag:0.5-1.5g/t	Quartz vein in granite (E.Permian)
31	129	272	Заботкин	1988	4276	Au:0.03-0.1g/t	Silicified zone in ss., silt & quartzite (E.-M.Ripheian)
32	139	272	Заботкин	1988	4276	Au:0.2g/t	Quartz vein in Py zone (L:200m, W:1-10m)
33	147	273	Заботкин	1988	4276	Au:0.15g/t	Py & Cpy zone in silicified rhyolite
34	149	273	Заботкин	1988	4276	Au:0.3g/t, Ag:2g/t	Py zone (W:50m) in granite (L.Ripheian)
35	156	273	Заботкин	1988	4276	Au:0.85-0.13g/t, Pb:0.2%	Quartz vein in volcanic rock (M.Devonian)
36	160	*215	Заботкин	1988	4276	Au:0.1-1.5g/t	Quartz vein
37	170	*216	Заботкин	1988	4276	Au:0.1-6g/t, Ag:1-4g/t	Quartz vein
38	185	*218	Заботкин	1988	4276	Au:0.25-8g/t, Ag:16g/t (max)	Quartz vein
39	194	273	Заботкин	1988	4276	Au:0.2g/t	Oxide Fe bearing zone (100x5m) in limestone (M.Devonian)
40	196	273	Ульянов	1966		Au:0.2g/t	Quartz vein
41	198	273	Заботкин	1988	4276	Au:0.2g/t, Ag:1-5g/t	Quartz vein in shale (E.Devonian)
42	200	274	Заботкин	1988	4276	Au:0.3g/t	Quartz vein in shale (E.Devonian)
43	203	261	Заботкин	1988	4276	Au:0.1g/t, Ag:0.3g/t	Quartz vein in shale (E.Devonian)
44	210	*219	Заботкин	1988	4276	Au:0.1g/t (max), Ni:0.15-0.2%	Quartz vein in contact zone (800x60m) with shale (E.Devonian) & Granite
45	217	274	Заботкин	1988	4276	Au:0.1-0.15g/t	Quartz vein
46	221	274	Заботкин	1988	4276	Au:0.05-0.5g/t	Quartz vein (L:15-100m, W:0.2-1m) in biotite granite
47	222	274	Заботкин	1988	4276	Au:2-112pcs, grain size:0.2-1.8m/m	Zone (25km <sup>2</sup> ) of geochemical anomaly

Table II-1-1 List of ore deposits and showings in the survey area (3)

No	Dep. No	Ref.	Locat.	Aut hor.	Year	Reg. No	Assay	Geology & occurrence
48	225	275	III-1	З а б о т к и н	1988	4276	Au:0.29/t	Quartz vein (N:0.2m) in shale (E. Carboniferous)
No	Dep. No	Ref.	Locat.	Aut hor.	Year	Reg. No	Assay	Geology & occurrence
49	226	275	III-2	З а б о т к и н	1988	4276	Au:39g/t	Quartz vein (L:20-50m, W:0.5-4m) in biotite granite
50	227	275	III-2	З а б о т к и н	1988	4276	Au:1.59g/t, Ag:39g/t	Zone bearing Py & Cpy in granite (L. Devonian)
As								
No	Dep. No	Ref.	Locat.	Aut hor.	Year	Reg. No	Assay	Geology & occurrence
1	14	*220	I-2	Т о т о х	1984	3702	Ag:1-182.69/t	Quartz vein
2	15	275	I-3	Т о т о х	1984	3702	Ag:139/t	Quartz lens (0.4x5m) in gabbro (Vend-E. Cambrian)
3	21	276	I-3	З а б о т к и н	1988	4276	Ag:0.15-4g/t	Quartz vein zone (800x28m) in granite (M. Permian)
4	37	276	I-3	З а б о т к и н	1988	4276	Ag:1.69/t, Cu, Pb, Zn:0.01%	Quartz zone (350x150m) in contact with shale & granite
5	38	276	I-3	З а б о т к и н	1988	4276	Ag:0.2-1.19/t	Quartz vein zone (W:0.5-1.5m) in granite (M. Permian)
6	47	276	I-2	З а б о т к и н	1988	4276	Ag:100g/t, Pb:1.5%	Silicified zone in rhyolitic tuff (M. Permian)
7	68	276	I-2	З а б о т к и н	1988	4276	Ag:0.5-39/t	Skarn in granodiorite (M.-L. Cambrian)
8	85	277	II-1	З а б о т к и н	1988	4276	Ag:0.5-39/t	Quartz vein (50x3.5m) in sandstone (L. Ordovician-E. Silurian)
9	121	277	II-2	З а б о т к и н	1988	4276	Ag:10g/t, Cu:0.8%	Sulphide diss. zone in shale (E.-M. Ripheian)
10	135	277	II-3	З а б о т к и н	1988	4276	Ag:69/t, Zn:0.1%	Py diss. zone (100x0.5m) in silicified rhyolite
11	158	277	II-3	З а б о т к и н	1988	4276	Ag:1-39/t	Quartz & epidote vein
12	179	277	II-3	З а б о т к и н	1988	4276	Ag:39/t, Pb:0.15%	Quartzite in shale (M.-L. Ripheian)
13	188	277	II-2	З а б о т к и н	1988	4276	Ag:30g/t, Cu:0.25%	Quartz vein zone (300x10m) in granodiorite (E. Devonian)
14	193	278	II-1	З а б о т к и н	1988	4276	Ag:6-200g/t	Quartz vein in granite (L. Devonian)
15	195	278	II-2	З а б о т к и н	1988	4276	Ag:49/t	Quartz vein in zone (70x1.5m) in granite (E. Devonian)
16	205	278	II-1	З а б о т к и н	1988	4276	Ag:1-10g/t	Quartz-tourmaline vein (2-5cm) in granite (M. Permian)
17	215	278	II-1	З а б о т к и н	1988	4276	Ag:1.59/t	Mineralized rhyolite dyke (200x5m) in sandstone (E. Devonian)
18	216	278	II-1	З а б о т к и н	1988	4276	Ag:1g/t	Quartz vein zone (50x5m) in granite (L. Devonian)
19	218	278	II-2	З а б о т к и н	1988	4276	Ag:1g/t	Py diss. zone in diorite dyke (300x2.5m)
20	219	278	II-2	З а б о т к и н	1988	4276	Ag:69/t, As & Cu:0.1%	Hematite containing quartzite lens in sandstone (E. Devonian)
21	235	279	II-3	З а б о т к и н	1988	4276	Ag:1-20g/t	
Cu								
No	Dep. No	Ref.	Locat.	Aut hor.	Year	Reg. No	Assay	Geology & occurrence
1	3	255	I-2	Б о й ш е н к о	1977			Quartz vein in granite (E. Permian)
2	10	255	I-2	Б о й ш е н к о	1977			Quartz vein with oxide Cu in granite (E. Proterozoic)
3	11	255	I-2	А н д р е а с	1970			Quartz vein with Py
4	40	*136	I-2	З а б о т к и н	1988	4276	Cu:0.37%, Mo:0.0053% (50.000 tons)	
5	48	255	I-3	Б о й ш е н к о	1978		Cu:0.6% (max)	Quartz vein (W:0.3-1.5m) in volcanic rock (Vend-E. Cambrian)
6	53	256	I-3	З а б о т к и н	1988	4276	Cu:0.1-1%, Ag:0.5-59/t	Quartz vein (400x550m) in contact zone with granite and limestone (E. Devonian)
7	58	256	I-1	З а б о т к и н	1988	4276	Cu:0.03-3%, Ag:1-509/t	Quartz vein zone in chloritized area
8	59	256	I-1	З а б о т к и н	1988	4276	Cu:1%, Ag:69/t	Py & Cpy dissemination zone (150x50m) in granite (E. Permian)
9	62	256	I-1	З а б о т к и н	1988	4276	Cu:0.2%, Ag:2-69/t	Py & malachite film in granite (M.-L. Cambrian)
10	63	256	I-1	З а б о т к и н	1988	4276	Cu:0.8%, Pb:0.08%	Py & malachite film in granite (M.-L. Cambrian)
11	64	256	I-2	З а б о т к и н	1988	4276	Cu:2.62%, Au:0.39/t, Ag:4.59/t	Quartz-hematite vein in granite (M.-L. Cambrian)
12	65	*138	I-1	З а б о т к и н	1988	4276	Cu:0.25%, Ag:2-69/t	Quartz vein
13	67	256	I-1	З а б о т к и н	1988	4276	Cu:0.25%, Ag:2-69/t	Py & malachite film in granite (M.-L. Cambrian)
14	73	257	II-2	З а б о т к и н	1988	4276	Cu:0.03%, Mo, Bi:0.01%	Quartz vein bearing hematite in gabbro & granite (M.-L. Cambrian)
15	76	257	II-1	З а б о т к и н	1988	4276	Cu:3% (max), Ag:169/t, Pb:0.03%	Silicified shale zone bearing Py in limestone (M.-L. Ripheian)
16	78	257	II-1	З а б о т к и н	1988	4276	Cu:0.5%, Ag:19/t	Granite (L. Permian)
17	83	257	II-2	З а б о т к и н	1988	4276	Cu:0.1-0.3%, Ag:0.6-39/t	Shale zone with py diss. & malachite film in tuff (E. Permian)
18	88	*130	II-1	З а б о т к и н	1988	4276	Cu:0.06-0.4%, Zn:0.01-0.025%	Quartz vein
19	92	257	II-1	З а б о т к и н	1988	4276	Cu:0.5-1%, Ag:19/t	Shale zone with malachite film in shale (L. Ordovician-E. Silurian)
20	93	258	II-1	З а б о т к и н	1988	4276	Cu:1%, Zn:0.02%	Shale (chlorite-quartz-feldspar) with malachite film



Table II-1-1 List of ore deposits and showings in the survey area (5)

K-47-B

No	Dep.No	Ref.	Locat	А у т h о р	Year	Reg.No	А s s а y	Г e o l o g y & о c c r e n c e
1	2	*300	1-1	В о л х о н и н	1953	1683	Au:0.45g/t	Placer gold deposit in terrigenous sediment(L.Devonian)
2	3	*301	1-2	В о л х о н и н	1953	1678	No description	Placer gold deposit in sandstone and conglomerate(Cretaceous)
3	4	*303	1-2	В о л х о н и н	1953	1683	Au:25-30g	Two placer gold deposits in ss and conglomerate(Cretaceous)
4	5	*304	1-2	В о л х о н и н	1953	1683	No description	Placer gold deposit in shale, sandstone and siltstone
5	6	*306	1-2	В о л х о н и н	1953	1683	No description	Three placer gold deposits in red rock(L.Cretaceous)
6	7	*307	1-2	В о л х о н и н	1953	1683	No description	Silicified fracture zone in limestone(M.Silurian-E.Devonian)
7	8	314	1-2	П о д к о п э и н	1989		Au:0.015-0.6g/t, Ni:0.03-0.15%	SS(Devonian) containing limestone and shale bearing py
8	9	315	1-2	П о д к о п э и н	1989		Au:0.1-1g/t	
9	10	315	1-2	П о д к о п э и н	1989		Au:0.6g/t, Ag:10g/t, Cu:1%	

Cu

No	Dep.No	Ref.	Locat	А у т h о р	Year	Reg.No	А s s а y	Г e o l o g y & о c c r e n c e
1	12	314	1-3	Л о р д и г	1981		Cu:0.5%	
2	13	*299	1-3	Л о р д и г	1981		Cu:1%	Quartz vein and silicified zone in granodiorite(E.-M.Carboniferous)



Table II-1-1 List of ore deposits and showings in the survey area (6)

L-48-B

A U			A s s a y			G e o l o g y & o c c u r r e n c e		
No.	Dep. No	Ref.	Locat.	Author	Year	Reg. No.	Assay	Geology & occurrence
1	3	+13	I-3	И.В. No. 3676	1980	3676	Au:0.27g/t, Ag:1.7g/t, Pb:32x(max)	Quartz vein(L:10-150m, W:0.1-2.5m) in granite and sandstone
2	4	+14	I-3	И.В. No. 3676	1980	3676	Au:1.5g/t, Pb:0.1x, Zn:0.1x, Cu:0.02x	Contact zone between graywacke(E. Permian) and granite
3	5	+15	I-3	И.В. No. 3676	1980	3676	Au:0.1-5g/t, Pb:2x, Zn:0.1x(max), Cu:0.02x	Quartz vein in sandstone
4	8	+17	I-3	И.В. No. 3676	1980	3676	Au:1g/t, Ag:3g/t, Pb:0.5x, Mo:0.001x	Ten quartz veins(L:10-50m, W:5m max) in conglomerate
5	13	147	I-1	Т.О.Т.О.Х	1986	3912	No description	Geochemical anomaly in sediments(4 samples)
6	20	147	I-3	И.В. No. 3676	1983	3912	Au:0.3g/t, Ag:0.3g/t	Quartz vein(L:100m, W:70m)
7	21	147	I-1	Т.О.Т.О.Х	1984	3912	Au:1.3g/t	Geochemical anomaly in faults zone in metamorphic rock
8	46	148	I-1	Т.О.Т.О.Х	1984	3912	Au:5 pcs. Area:16km <sup>2</sup>	Geochemical anomaly of basalt and sedimentary rock(Cretaceous)
9	125	144	I-3	З.А.О.Т.К.И.Н	1983	3676	Au:0.1g/t	Quartz vein(L:10-100m, W:0.2-2a)
10	151	146	III-3	З.А.О.Т.К.И.Н	1983	3676	Au:0.3g/t	Quartz vein(L:50m, W:1m)
11	163	146	III-3	З.А.О.Т.К.И.Н	1983	3676	Au:0.3g/t	Quartz vein(L:100m, W:1m)
12	164	+109	III-3	И.В. No. 3676	1979-82	3676	Au:0.1-50g/t, Ag:0.15-1.8g/t, Zn:0.15x	Quartz vein(L:5-46m, W:0.1-0.5m) in tuff, ss, siltstone, mudstone
13	165	+110	III-3	И.В. No. 3676	1979-82	3676	Au:0.1-10g/t, Ag:0.1-1g/t, Zn:0.15x	Quartz vein in slate and volcanic rock
14	167	+112	III-3	И.В. No. 3676	1979-82	3676	Au:0.1-50g/t, Ag:0.1-1g/t, Pb:0.03x	Quartz vein(L:10-40m, W:0.1-0.5m) in ss, siltstone, mudstone
15	171	146	III-3	И.В. No. 3676	1983	3676	Au:2g/t, Ag:0.3g/t	Quartz-tourmaline vein(L:25m, W:0.5m)
16	172	149	III-3	З.А.О.Т.К.И.Н	1982	3676	Au:1-6 pcs. Area:20km <sup>2</sup>	Volcanic rock(Devonian)
17	175	149	III-3	З.А.О.Т.К.И.Н	1982	3676	Au:1-6 pcs. Area:8km <sup>2</sup>	Geochemical anomaly(area:8km <sup>2</sup> ) by quartz vein
18	177	+116	III-3	И.В. No. 3676	1979-82	3676	Au:0.3-20g/t, Ag:0.7g/t, Pb, As:0.1x	Quartz vein(L:3-40m, W:0.1-2m) in diabase(M. Devonian)
19	179	149	III-3	З.А.О.Т.К.И.Н	1982	3676	Au:1-3 pcs. Area:12km <sup>2</sup>	Geochemical anomaly(area:12km <sup>2</sup> ) by quartz vein
20	181	146	III-3	З.А.О.Т.К.И.Н	1983	3676	Au:0.3g/t	Stockwork of quartz vein(L:300m, W:100m)
21	196	146	III-3	З.А.О.Т.К.И.Н	1983	3676	Au:0.5g/t	Zone(L:1 km, W:50m) of Quartz vein(L:100m, W:5m)
22	201	146	III-3	З.А.О.Т.К.И.Н	1983	3676	Au:0.2g/t	Oxide Fe zone(L:200m, W:50m)
23	204	149	III-1	Т.О.Т.О.Х	1986	3912	No description	Geochemical anomaly (area:8km <sup>2</sup> )

A G			A s s a y			G e o l o g y & o c c u r r e n c e		
No.	Dep. No	Ref.	Locat.	Author	Year	Reg. No.	Assay	Geology & occurrence
1	6	141	I-3	З.А.О.Т.К.И.Н	1983	3676	Ag:0.5g/t	Zone(200x20m) of quartz vein(W:5cm)
2	11	+18	I-1	Т.О.Т.О.Х	1986	3912	Au:50g/t, W:0.05x	Quartz vein(W:0.3-1.5m) in granite
3	18	141	I-3	З.А.О.Т.К.И.Н	1983	3676	Ag:10-100g/t, Au:0.1g/t	Quartz vein(L:15m, W:0.3m)
4	73	143	I-3	З.А.О.Т.К.И.Н	1983	3676	Ag:4g/t	Mineralized zone bearing malachite(are:15x5m)
5	74	143	I-3	З.А.О.Т.К.И.Н	1983	3676	Ag:10g/t	Zone(are:50x10m) of quartz vein(W:5cm)
6	83	143	I-3	З.А.О.Т.К.И.Н	1983	3676	Ag:0.5-50g/t	Quartz vein(L:10-30m, W:0.1-0.3m)
7	117	143	III-3	З.А.О.Т.К.И.Н	1983	3676	Ag:0.5-3.5g/t, Pb:0.32x	Quartz vein(L:10-200m, W:0.5-2.5m) in granite(M. Devonian)
8	120	+88	III-3	И.В. No. 3676	1981	3676	Ag:10-30g/t, Bi:0.002x, Zn:0.01x	Quartz vein(L:400m, W:0.05-0.5m) in granite
9	184	+121	III-3	И.В. No. 3676	1979-82	3676	Ag:10-30g/t, Bi:0.002x, Zn:0.01x	Quartz vein(L:400m, W:0.05-0.5m) in granite

C U			A s s a y			G e o l o g y & o c c u r r e n c e		
No.	Dep. No	Ref.	Locat.	Author	Year	Reg. No.	Assay	Geology & occurrence
1	10	147	I-1	Т.О.Т.О.Х	1984	3912	Cu:0.005x	
2	12	+19	I-3	И.В. No. 3676	1979-82	3676	Cu:1-32, Ag:30g/t, Zn:0.03x	
3	14	+20	I-2	Т.О.Т.О.Х	1984	3912	Cu:1.83x, Zn:0.01x	
4	15	+21	I-3	И.В. No. 2574	1984	2574	Cu:0.02-1.83x, Mo:0.002x	
5	25	+25	I-3	О.Т.К.П.Ы.Т.О.	1965	3676	Cu:0.02x max, Mo:0.02x max, Co:0.006x	
6	30	142	I-3	З.А.О.Т.К.И.Н	1983	3676	Cu:0.1-1x, Zn:0.1x, Pb:0.3x	Mineralized zone bearing malachite
7	31	+28	I-1	И.В. No. 3912	1985	3912	Cu:1-8x, Zn:0.3x, Ag:15g/t	
8	100	+75	II-2	О.Т.К.П.Ы.Т.О.	1965	3912	Cu:10x, Pb:0.01x, Zn:0.5x	
9	102	143	II-2	Т.О.Т.О.Х	1984	3912	Cu:6.7x, Au:0.15g/t, Ag:100g/t	Mineralized zone(L:500m, W:10-15m) bearing malachite

Table II-1-1 List of ore deposits and showings in the survey area (7)

No	Dep.No	Ref.	Locat	Author	Year	Reg.No	Assay	Geology & occurrence
10	104	*73	II-1	Открыто	1971	1977	Cu:2-4%, No:0.02%max	
11	149	145	III-1	Открыто	1971	1977	Cu:0.5%, Co:0.05%	
12	155	145	II-1	Открыто	1971	1977		Quartz vein in gabbro(dyke)
13	156	145	III-3	Заботкин	1983	3676	Cu:1%, Ag:3grt	Silicified zone bearing malachite
14	168	149	III-2	Тогтох	1986	3912	Cu:0.005%	Geochemical anomaly
15	182	*120	III-3	Овчарукен	1969	1989	Cu:0.01-0.05%, Pb:0.02%max.	
16	183	146	III-3	Заботкин	1983	3676	Cu:620 g/m <sup>3</sup>	Quartz vein(50x1m) bearing malachite
17	189	149	III-2	Тогтох	1986	3912	Cu:0.005%	Geochemical anomaly
18	39	142	I-1	Тогтох	1984	3912	Cu:0.1%	Quartz vein, geochemical anomaly
19	43	142	I-3	Заботкин	1983	3676	Cu:0.02-0.1%, Pb:0.1%	Quartz vein, geochemical anomaly
20	47	*37	I-3	Открыто	1971	1977	Cu:0.8%max, Zn:0.01%	Quartz vein, geochemical anomaly
21	49	*38	I-1	Открыто	1971	1977	Cu:0.2-1%, Pb:0.05%, Ag:15-20grt	Quartz vein(L:200m, W:0.7-1.7m)
22	59	143	I-1	Тогтох	1984	3912	Cu:0.2-1%, Pb:0.05%, Ag:15-20grt	Mineralized zone(L:100m, W:5-6m)
23	65	148	I-1	Тогтох	1986	3912	Cu:0.005%	Geochemical anomaly
24	70	143	I-3	Заботкин	1983	3676	Cu:0.1%, Ag:0.3%	Quartz vein, geochemical anomaly
25	85	143	II-2	Тогтох	1984	3912	Cu:0.1%, Ag:0.3grt	Mineralized zone(L:25-30m, W:0.5m)
26	91	143	II-3	Заботкин	1983	3676	Cu:1%, Ag:10grt	Mineralized zone(L:15m, W:5m)

Pb

No	Dep.No	Ref.	Locat	Author	Year	Reg.No	Assay	Geology & occurrence
1	7	141	I-3	Степанов	1988	1845	Cu:0.1%	Mineralized zone(1.5km <sup>2</sup> )
	53	147	I-1	Тогтох	1984	3912	No description	
2	114	*85	II-2	Открыто	1983	3912	Cu:1%, Pb:1%, Zn:0.15%	Fracture zone, geochemical anomaly
3	126	148	II-1	Тогтох	1986	3912	Pb:0.07%	Silicified zone
4	148	145	II-1	Тогтох	1984	3912	Pb:1%, Ag:50grt	
5	170	146	II-3	Заботкин	1983	3676	Pb:6.6%	

Zn

No	Dep.No	Ref.	Locat	Author	Year	Reg.No	Assay	Geology & occurrence
1	16	147	II-2	Тогтох	1984	3912	Zn:0.01%	Geochemical anomaly
2	169	144	II-2	Тогтох	1984	3912	Zn:1%, Pb:1%, Cu:0.3%, Ag:5grt	Mineralized zone bearing hematite(area:150x10m)
3	115	*86	II-2	Открыто	1984	3912	Zn:1%, Cu:0.01%max.	
4	122	148	II-1	Тогтох	1986	3912	Zn:0.01%, Mo:tr, Cu:tr	
5	123	148	II-2	Тогтох	1986	3912	Zn:0.015%, Mo:tr, Pb:tr	
6	154	149	II-1	Тогтох	1986	3912	Zn:0.01%, Mo:tr	Fracture zone(Late Cambrian)

Table II-1-1 List of ore deposits and showings in the survey area (8)

K-48-A, B

No	Dep. No	Ref.	Locat.	Author	Year	Reg. No	Assay	Geology & occurrence
1	5	10	I-1	Тортох	1982-84	3912	Au: 0.01g/m <sup>3</sup>	Placer gold in terrigenous sediment (L. Permian)
2	15	91	I-2	Тортох	1986	3912	No description	Geochemical anomaly (area: 12.5 km <sup>2</sup> )

No	Dep. No	Ref.	Locat.	Author	Year	Reg. No	Assay	Geology & occurrence
1	4	92	I-3	Толвенец БЕРГ	1978		No description	
2	19	93	I-1	Лебедева	1981		Cu: 0.05%	
3	21	91	I-1	Тортох	1986		Cu: 0.01-0.03%, Mo: 0.001%	Geochemical anomaly (area: 12.5 km <sup>2</sup> )
4	67	92	III-3	Лукбянов	1949		Cu: 0.14-0.2%	
5	69	92	III-1	Шувалов	1993		No description	Malachite in mineralized zone (L: 60-70m)

No	Dep. No	Ref.	Locat.	Author	Year	Reg. No	Assay	Geology & occurrence
1	68	63	III-1	Шевелев	1955	810	Pb: 0.72-13.8%	
2	78	65	III-3	Иванов 641	1953	641	Pb: 0.32-0.62%	
3	71	66	III-1	Шевелев	1955	641	Pb: 0.03-0.14%	
4	72	67	III-3	Открыто	1955	646		
5	74	68	III-3	Иванов 562, 810	1951	810	Pb: <26.37%, Ag: <206.6g/t, Cu: 0.17%	
6	75	70	III-3	Шевелев	1955	810	Pb: 0.5%	
7	76	71	III-3	Анджиков	810			
8	79	72	III-3	Иванов 810	1951	810	Pb: 1.42%	
9	80	73	III-3	Иванов 810, 562	1953-55	810	Pb: 0.8%	
10	81	74	III-2	Иванов 646	1953	646	Pb: 0.07%	
11	84	79	III-3	Открыто	1956	1928	Pb: 0.27-1.12%	
12	85	80	III-3	Иванов 207, 305	1954		Pb: 0.18-5.18%	
13	89	82	IV-2	Иванов 168, 646	1953		Pb: 0.1%	
14	90	83	IV-3	Иванов 810	1951			
15	91	84	IV-3	Открыто	1970	1928	Pb: 0.001-0.1%, Zn: 0.02% (max)	

Table II-1-1 List of ore deposits and showings in the survey area (9)

L-48-Г  
A.U.

No. Dep. No	Ref.	Locat	A u t h o r	Year	Reg. No	A s s a y	G e o l o g y & o c c u r r e n c e
1	36	198 I-3	З а б о т к и н	1983	3676	Au:0.19/t, Ag:0.2-79/t	12 samples from parallel quartz veins
2	111	*105 I-2	З а б о т к и н	1983	3676	Au:0.1-0.49/t, Ag: <409/t, Pb, Zn:0.3%	Fracture zone in granophyry (Permian)
3	154	*105 I-2	С т е п а н о в	1970	1845	Au:0.19/t, Ag:4.59/t, Cu:0.01-0.1%	Quartz vein in faults in limestone (Proterozoic)
4	153	201 I-3	No description		3672	Au:0.29/t, Ag:509/t, Mn:0.1%, Pb:0.3%	Metasomatic zone (L:1km, W:300m) of volcanic rock
5	186	202 I-3	No description			Olivinite body (L:500m, W:300m) in shale and limestone	
6	213	202 I-3	No description			Au:0.39/t, Cr:0.02%, P:0.1%	
7	225	141 I-2	No description		3676	Au:0.39/t, Cr: <0.02%, P:0.1%	Fracture zone in acidic volcanic rock (Mesozoic)
8	229	203 I-1	No description		3676	Au:0.029/t, Co:0.03, Zn:0.07%	Two samples from quartz vein bearing malachite, azurite, limonate
9	232	203 I-2	No description		3676	Au:0.29/t, Ag:0.59/t	Quartz vein (L:35m, W:0.5m)
10	233	203 I-2	No description		3676	Au:0.79/t, Ag:7.39/t	One sample from stockwork (L:300m, W:60m)
11	235	204 I-2	No description		3676	Au:0.49/t, Ag:5.49/t	One sample from quartz stockwork (L:300m, W:60m)
12	236	204 I-3	No description		3676	Au:0.19/t, Cr: <0.02%, Mo:0.002%	Quartz vein in volcanic rock
13	238	204 I-2	No description		3676	Au:0.49/t	One sample from silicified zone (L:400m, W:20m)
14	241	204 I-1	No description		3676	Au:0.19/t, Ag:2.39/t, Ca:0.03-0.06%	4 samples from quartz vein (L:50m, W:0.5m)
15	247	204 I-1	No description		3676	Au:0.49/t, Ag: <3.29/t, Cr:0.1-0.7%	Quartz vein (0.5m) in listvenitization zone (300x20m)
16	253	205 I-1	Г о л ь д е н ь е в	1974-77	2724	Au:0.29/t	Quartz vein in contact of granite and Ss (E. Devonian)
17	254	205 I-2	Г о л ь д е н ь е в	1974-77			2 samples from quartz vein (L:1km, W:100m)
18	256	205 I-1	Г о л ь д е н ь е в	1974-77	2724	Au:0.099/t, Ag:29/t, Zn:0.01-0.04%	Quartz vein zone (L:2.500m, W:600m)
19	265	206 I-2	Г о л ь д е н ь е в	1974-77	2724	Au:0.1-0.59/t, Ag: <0.89/t, Pb:0.04%	Quartz vein (L:80m, W:1m) in shale (E. Devonian)
20	267	*156 I-2	No. 336, 1587	1961-62		Au:0.59/t, Ag:29/t, Pb:0.08-0.25%	Quartz vein (L:60m, W:2m) in Ss and shale (M. Devonian)
21	268	*157 I-2	Г о л ь д е н ь е в	1974-77	2724	Au:49/t, Cu:0.01%	Quartz vein in Ss and schist
22	270	207 I-1	Г о л ь д е н ь е в	1974-77	2724	Au:0.349/t	Two samples from quartz vein
23	272	224 I-1	Г о л ь д е н ь е в	1974-77	2724	Au:0.26-0.749/t	Quartz vein in Ss and shale (Devonian)
24	275	224 I-1	Г о л ь д е н ь е в	1974-77	2724		Quartz vein in Ss, tuff, dacite and mudstone
25	276	207 I-1	Г о л ь д е н ь е в	1974-77	2724	Au:0.29/t	Stockwork of quartz vein (W:0.2m), geochemical anomaly
26	277	207 I-1	Г о л ь д е н ь е в	1974-77	2724	Au:0.2-0.359/t	Contact of diabase (M. Devonian) and sandstone
27	279	*181 I-2	Г о л ь д е н ь е в	1974-77	2724	Au:0.25-59/t, Ag:1.59/t, Mo:0.06%	Quartz vein (L:50-300m, W:0.2-1.25m) in Ss and schist
28	290	293 I-1	Г о л ь д е н ь е в	1974-77	2724	Au:0.59/t	Fracture zone in meta-diabase
29	295	293 I-1	Г о л ь д е н ь е в	1974-77	2724	Au:0.29/t, Ag:0.29/t, Pb:0.12%	Quartz vein in rhyolite (M. Devonian), geochemical anomaly
30	287	208 I-1	Г о л ь д е н ь е в	1974-77	2724	Au:0.4-0.79/t, Ag:2.3-59/t	Two samples from contact of granite and sedimentary rock
31	290	295 I-1	Г о л ь д е н ь е в	1974-77	2724	1-18 pcs of gold grain	Geochemical anomaly in gabbro and diabase
32	296	289 I-1	Г о л ь д е н ь е в	1974-77	2724	Au:0.1-0.29/t	Silicified and carbonated zone bearing Py
33	298	289 I-1	Г о л ь д е н ь е в	1974-77	2724	Au:0.3-0.49/t	Brecciated and silicified zone in basic rock
34	308	210 I-2	Г о л ь д е н ь е в	1974-77	2724	Au:0.24-2.39/t	Quartz vein in great faults zone
35	330	*178 I-2	Г о л ь д е н ь е в	1974-77	2724	Au:1.5-59/t	Quartz vein in fracture zone of Ss
36	345	226 I-2	Г о л ь д е н ь е в	1974-77	2724	Au:2-5 pcs.	Geochemical anomaly (2 km <sup>2</sup> ), 2-5 pcs of gold in 3 samples
37	349	213 I-2	Ш а б л о в с к и н	1974-77	2648	Gold grain size: 0.1-0.4 m/m	Quartz vein in ultrabasic rock in Maniai fault zone
38	369	214 I-2	Г о л ь д е н ь е в	1974-77	2724	Au:49/t, Ag:109/t	Quartz vein bearing tourmaline in silicified rock
39	376	193 I-2	Г о л ь д е н ь е в	1974-77	2724	Au:2.79/t, Cu:1%	Quartz vein in contact of granodiorite and porphyry

Table II-1-1 List of ore deposits and showings in the survey area (10)

No		Ref.		Locat.		A u t h o r		Y e a r		R e g . N o		A s s a y		G e o l o g y & o c c u r r e n c e	
1	4	179	I-1	З а б о т к и н	1983	3676	Ag:0.5-30g/t, Au:0.1g/t, Cu:0.1%								
2	18	198	I-1	З а б о т к и н	1983	3676	Ag:0.1-19g/t, As:1%								
3	27	198	I-3	З а б о т к и н	1983	3676	Ag:0.1-6g/t, Au:0.1g/t, Mo:0.01%								
4	81	199	I-3	З а б о т к и н	1983	3676	Ag:0.3-50g/t, Au:0.05g/t								
5	107	200	I-2	З а б о т к и н	1983	3676	Ag:1-5g/t, Au:0.05g/t, Pb, Zn:0.04%								
6	167	201	II-2	З а б о т к и н	1983	3676	Ag:1g/t, Zn:0.02%								
7	234	203	II-2	З а б о т к и н	1983	3676	Ag:3.1g/t								
8	246	204	II-1	З а б о т к и н	1983	3676	Ag:1g/t, Cu:0.03%								
9	347	212	III-3	Ш а б а л о в с к и н	1974-77	2548	Ag:2.4g/t								
10	359	214	III-3	Г о л ь д е н б е р г	1974-77	2724	Ag: < 12g/t								
11	379	215	III-1	Г о л ь д е н б е р г	1974-77	2724	Ag:2.5g/t								
C u															
1	156	*187	II-2												
2	219	*138	II-2												
3	221	*140	II-2												
4	249	204	II-2	№ 3676 З а б о т к и н	1983										
5	252	205	III-1	Г о л ь д е н б е р г	1974-77	2724	Cu:0.1%								
6	261	206	III-2	Г о л ь д е н б е р г	1974-77	2724									
7	263	206	III-1	Г о л ь д е н б е р г	1974-77	2724									
8	269	*158	III-3												
9	278	207	III-1	Г о л ь д е н б е р г	1974-77	2724	Cu:0.2%, Ag: < 0.8g/t, Pb:0.01%								
10	281	207	III-1	Г о л ь д е н б е р г	1974-77	2724	Cu:0.1%								
11	283	*162	III-3												
12	284	*163	III-3												
13	286	208	III-1	Ш а б а л о в с к и н		2648									
14	289	*165	III-2												
15	293	*167	III-3												
16	297	*169	III-1												
17	305	209	III-1	Г о л ь д е н б е р г	1974-77	2724	Cu:0.03-0.08%, Ag:0.1-0.15%								
18	312	210	III-2	Г о л ь д е н б е р г	1974-77	2724									
19	313	210	III-3	Г о л ь д е н б е р г	1974-77	2724	Cu:0.1-1%, Ag:0.2-3g/t								
20	314	225	III-3	Г о л ь д е н б е р г	1974-77	2724	Cu:0.008-0.03%								
21	316	210	III-3	Г о л ь д е н б е р г	1974-77	2724									
22	318	211	III-2	Г о л ь д е н б е р г	1974-77	2724	Cu:0.08%, Co:0.02%								
23	319	211	III-3	Г о л ь д е н б е р г	1974-77	2724									
24	320	211	III-3	Г о л ь д е н б е р г	1974-77	2724	Cu:0.1-8%, Zn:0.02-0.06%, Mo:0.003%								
25	322	*173	III-2												
26	324	211	III-3	Г о л ь д е н б е р г	1974-77	2724	Cu:0.05%								
27	325	226	III-3	Г о л ь д е н б е р г	1974-77	2724	Cu:0.01-0.2%								
28	327	*176	III-3												
29	332	*179	III-3												
30	333	*180	III-3												
31	334	226	III-3	А д ь я		1906	Cu:0.05-0.8%, Co:0.008-0.03%								
32	336	212	III-2	Г о л ь д е н б е р г	1974-77	2724	Cu:0.4-1%, Ag:0.3g/t, As:0.01%								
33	339	212	III-3	Ш а б а л о в с к и н		2648									
34	340	*182	III-1												
35	341	*183	III-2												

Table II-1-1 List of ore deposits and showings in the survey area (11)

No	Dep.No	Ref.	Local	Author	Year	Reg.No	Assay	Geology & occurrence
36	342	212	III-3	Шабаловский		2648	Cu:0.1%, Ag:0.15g/t, As:0.008%	
37	343	*184	III-3					
38	348	*185	III-3					
39	350	*186	III-3					
40	353	*187	III-2					
41	355	213	III-1	Шабаловский		2648	Cu:0.2%	
42	361	214	III-1	Гольденберг	1974-77	2724	Cu:0.03%	
43	362	214	III-1	Шабаловский		2648		
44	365	*188	III-2					
45	366	227	III-2					
46	368	*189	III-1					
47	370	*190	III-2					
48	371	215	III-3	Гольденберг	1974-77	2724	Cu:0.05%	
49	373	215	III-1	Гольденберг	1974-77	2724	Cu:0.3%	
50	374	*191	III-2					
51	375	*192	III-2					
52	377	*194	III-2					
53	378	*195	III-1					
54	380	215	III-1	Гольденберг	1974-77	2724	Cu:0.08%	
55	317	*172	III-3					

P b

No	Dep.No	Ref.	Local	Author	Year	Reg.No	Assay	Geology & occurrence
1	95	219	I-2					
2	120	220	II-1					Geochemical anomaly
3	121	220	II-2					
4	127	220	II-2					
5	130	220	II-1					Geochemical anomaly Geochemical anomaly
6	131	220	II-1					
7	132	220	II-1					Geochemical anomaly
8	149	222	II-2					Geochemical anomaly
9	155	106	II-2					
10	160	222	II-2					
11	161	*109	I-1					Geochemical anomaly Geochemical anomaly
12	168	*114	II-2					
13	190	223	II-1					
14	193	223	II-1					
15	207	224	II-2	Заботкин	1983	3676		
16	232	203	II-2					
17	251	*205	III-1	Гольденберг	1974-77	2724	Pb:0.03-0.2%, Zn:0.04-0.05%	
18	259	224	III-1	Гольденберг	1974-77	2724		
19	266	*155	III-2					
20	271	*207	III-1	Гольденберг	1974-77	2724	Pb:0.02%	
21	284	208	III-2	Гольденберг	1974-77	2724	Pb:0.1-0.3%, Cu:0.01-0.1%	
22	354	227	III-2					
23	354	*214	III-2	Гольденберг	1974-77	2724	Pb:0.06-0.12%, Ag:0.15-0.6g/t	
24	372	*215	III-1	Гольденберг	1974-77	2724	Pb:0.06-0.2%, Ag:0.15-0.5g/t	

Table II-1-1 List of ore deposits and showings in the survey area (12)

No	Dep. No	Ref.	Local	Author	Year	Reg. No	Assay	Geology & occurrence
1	212	202	II-2				Zn:2%, Mo:0.01%	
2	352	213	III-2	Шабалов С.К. и Н.		2648	Zn:0.1%, Pb:0.05%, As:0.15g/t	
3	133	220	II-1	Зинков	1968-69	1858		Geochemical anomaly

Table II-1-1 List of ore deposits and showings in the survey area (13)

K-48-B, Г

Au		Ag		Cu		Pb	
No	Dep. No Ref.	Locat	Autho r	Year	Reg. No	Assay	Geology & occurrence
1	3	10	Гольденберг	1974-77	2724	Au:5g/t, Ag:5g/t, Cu:0.2%	
2	9	76	1-3			1-28 pcs of gold grain	
3	35	73	Гольденберг	1979		Au:0.12g/t, Ag: <1g/t	
Ag							
No	Dep. No Ref.	Locat	Autho r	Year	Reg. No	Assay	Geology & occurrence
1	42	73	Гольденберг	1979		Ag:1g/t(max)	
2	39	73	Гольденберг	1979		Ag:2.5g/t(max), Pb:0.01%, Cu:0.02%	
Cu							
No	Dep. No Ref.	Locat	Autho r	Year	Reg. No	Assay	Geology & occurrence
1	1	9	1-1				
2	5	12	1-3				
3	7	74	1-3				
4	11	74	1-3				
5	12	74	1-3				
6	13	15	3		3695	Cu:0.5-1%, Mo:0.2%, Ag:10g/t, Pb:1%	
7	26	75	1-2				
8	29	74	1-1				
9	30	74	1-2				
10	36	20	1-1	1983	3695	Cu:0.005-0.015%	
11	40	76	1-1				
12	44	26	3	1974-77	3695	Cu:<0.11%, Zn:1.11%, Ag:0.6-0.9g/t	
13	51	75	1-1		3319	Cu:0.01-0.02%, Mo:0.003%	Geochemical anomaly
14	53	32	1-2				
15	54	73	1-1		526		
16	55	33	1-1	1978	2648	Cu:0.2%, Mo:0.008%	
17	56	73	1-3	1978	2648		
18	67	73	1-3	1978	2648		
19	68	73	1-3	1978	2648		
20	70	44	1-2	1978	3695	Cu:1%, Ag:30g/t, Zn:0.15%, Mo:0.015%	
21	71	46	1-3	1974-77	3319		
22	72	73	1-2	1978	2648		
23	73	73	1-2	1978	2648		
24	77	49	1-2	1974-77	3685	Cu:2-0.3%, Pb:0.003-0.02%	
25	79	52	1-2	1958	1371		
26	84	57	1-3	1958	1371	Cu:0.1%, Pb:0.01-0.03%	
27	93	74	1-1		526		
28	97	74	1-1		1110		
Pb							
No	Dep. No Ref.	Locat	Autho r	Year	Reg. No	Assay	Geology & occurrence
1	2	72	1-1	1979			
2	10	75	1-3				Geochemical anomaly
3	76	76	1-3				
4	85	58	1-1				
5	86	59	1-1				
6	96	69	1-1	1956	805		



Table II-1-1 List of ore deposits and showings in the survey area (14)

L-49-B

No	Dep. No	Ref.	Locat	Author	Year	Reg. No	Assay	Geology & occurrence
1	275	-278	II-1	Адыба	1971	1906	Ag: 0.001%	Geochemical anomaly zone (area: 7 km <sup>2</sup> )
2	302	284	II-1	Сажжадорж	1963		Ag: grain size 0.1-0.2 mm, Mn: <0.3%	

Cu

No	Dep. No	Ref.	Locat	Author	Year	Reg. No	Assay	Geology & occurrence
1	255	-229	II-1	Адыба	1971	1906	Cu: 0.002-0.008%	
2	270	-240	II-1	Адыба	1971	1906	Cu: 0.03-0.6%, Pb: <0.04%, Zn: <0.04%	
3	272	-242	II-1	Адыба	1971	1906	Cu: 1%, Zn: 0.3%, Co: 0.1%	
4	273	-243	II-1	Адыба	1972	1964	Cu: 0.008-0.06%	
5	274	278	II-1	Адыба	1971	1906		
6	276	278	II-1	Адыба	1971	1906	Cu: 3-5%, Zn: 0.08%, Ag: 0.001%	
7	279	-244	II-1	Бкхарви	1983	3604	Cu: 0.1-1.16%	
8	280	-279	II-1	Сажжадорж	1974	2118	Cu: 0.01-0.08%	
9	292	-246	II-1	Шархуу	1980	3022	Cu: 0.01%	
10	285	-248	II-1	Шархуу	1980	3022	Cu: 0.05-0.08%	
11	286	279	II-1	Адыба	1971	1906	Cu: 0.9-1.3%	
12	287	-249	II-1	Шархуу	1980	3022	Cu: 0.32-0.65%, Pb: 0.58%	
13	288	-250	II-1	Адыба	1971	1906		

Zn

No	Dep. No	Ref.	Locat	Author	Year	Reg. No	Assay	Geology & occurrence
1	277	-279	II-1	Адыба	1971	1906	Zn: 0.1%, Cu: 3-5%, Ag: 0.001%	

Table II-1-1 List of ore deposits and showings in the survey area (15)

K-49-A, B

Cu

No.	Dep.No.	Ref.	Locat.	Author	Year	Reg.No.	Assay	Geology & occurrence
1	4	62	I-1	Л.Э.Н.Д.Э.В.Ч.У.Л.У.У.Н	1977	2347	Cu:0.01%	
2	5	11	I-1	Г.О.М.Ь.Л.Е.Н.Б.Е.Р.Г	1978	2347.2	Cu:0.4%, Ag:0.89%	
3	6	62	I-1	Л.А.Ш.Ч.Э.Р.Э.Н	1972	1948		
4	7	62	I-1	Л.А.Ш.Ч.Э.Р.Э.Н	1972	1948		
5	8	12	I-1	Л.А.Г.В.А.Д.О.Р.Ж	1977	2503	Cu:0.39-0.54%, Zn:0.1-3.67%	
6	9	13	I-1	Л.А.Г.В.А.Д.О.Р.Ж	1977	1776.2	Cu:0.03-0.27%	
7	10	14	I-1	Л.Э.Н.Я.-А.Ю.У.Ш	1968	2724.2	Cu:0.61%, Mo:0.026%, etc	
8	12	62	I-1	No.1773, 2538				
9	14	19	I-1	Г.О.Л.Ь.Д.Е.Н.Б.Е.Р.Г	1978	2424		
10	16	21	I-1	Г.О.Л.Ь.Д.Е.Н.Б.Е.Р.Г	1978	2424	Cu:0.3-0.6%, Mo:0.002-0.004%	
11	28	63	I-1	К.А.З.А.К.О.В	1968	1348	Cu:0.001%, Pb:0.001%	
12	31	33	I-1					
13	52	53	I-1					

Pb

No.	Dep.No.	Ref.	Locat.	Author	Year	Reg.No.	Assay	Geology & occurrence
1	277	281	II-1					
2	40	63	I-1					

Table II-1-2 List of collected existing data (1)

1. Geological surveys at a scale of 1 to 1,000,000 in the past

	Report No.	Author	Year	Remarks
1	1371	Петровиц, Ю. Я	1959	
2	1587	Храпов, А. А	1962	
3	1600	Логинов, Ю. М	1962	
4	1753, 1754	Уфлянд, А. К	1966	

2. Geological surveys at a scale of 1 to 500,000 in the past

	Report No.	Author	Year	Remarks
1	91, 92, 1024	В. В. Делжнов	1940	
2	439	Ю. С. Желубовский	1945	
3	996	З. А. Лебедева	1931	
4	1259	В. С. Волховян	1952	
5	1281	Давылов	1953	
6	1317	А. А. Толмачевский	1960	
7	1371	Б. М. Казаков	1958	
8	1739	Д. Д. Сагалуев	1966	
9	1774	В. И. Васильев	1966	
10	1779	В. В. Махов	1967	
11	1858	А. П. Зянков	1969	
12	1957, 1958	Х. А. Боршева	1971	
13	1958	Н. А. Бочаров	1972	
14	1977	А. Ф. Бойшенко	1972	
15	2006	Ц. Ганбат	1971	
16	2007	А. Ф. Бойшенко	1974	
17	2017	Ю. М. Обедков	1972	
18	2017	И. А. Тургинова	1974	
19	2079	А. Н. Степанов	1973	
20	2574	Е. Д. Аносова	1976	
21	3361	Е. Менхбат, Д. Жанчив	1980	
22	3431	Б. Дорляг	1982	

Table II-1-2 List of collected existing data (2)

3. Geological surveys at a scale of 1 to 200,000 in the past

	Report No.	Author	Year	Remarks
1	562	М. А. Анкипов	1951	
2	578	А. М. Тимофеев	1957	
3	642	Б. А. Шевелев	1954	Taking photo copy
4	646	Хублaidков	1953	
5	805	Хублaidков	1954	
6	810	Анпйлов	1952	
7	815	Пономарева. Н. И	1954	
8	1199, 1714	Волхойн	1951	
9	1293, 1842	Браташ. В. И	1953	
10	1303	Шйцков		
11	1400	Кулеш	1959	
12	1712	А. Т. Баврикова	1954	
13	1844	Данйлов	1952	
14	1906	Адьяа	1970	Taking photo copy
15	1924	С. Нацагдорж, Баатар	1970	
16	1948	Дашцэрэн, Санжаадорж	1972	Taking photo copy
17	1949	Хаянхярваа	1977	
18	2724	Гольденберг	1978	Taking photo copy
19	3460	А. А. Толмачевский	1954	
20	3676	Заботхйн	1983	Taking photo copy
21	3912	Тогтох	1986	Taking photo copy
22	4186	Раузер	1987	Taking photo copy
23	4276	Заботхйн	1988	Taking photo copy
24	4377	Бемберее	1990	

4. Geological survey at a scale of 1 to 100,000 in the past

	Report No.	Author	Year	Remarks
1	1895	Д. Андреас	1968	

5. Geological surveys at a scale of 1 to 50,000 in the past

	Report No.	Author	Year	Remarks
1	641, 642	Шевелев	1954	
2	1195	Блохйн	1951	
3	1773	Берман	1968	
4	2571	Г. Энхцэцэг	1977	
5	3022	И. Худэрбат	1980	
6	3190	Давыдов	1955	
7	3366	Шархуу	1981	
8	3695	М. Хован	1981	Taking photo copy
9	3740	Хосбаяр	1984	
10	4544	Сухбат	1991	

Table II-1-2 List of collected existing data (3)

6. Evaluation of ore deposits

	Report No.	Author	Year	Remarks
1	2267	Шабаловский	1978	

7. Detail survey

	Report No.	Author	Year	Remarks
1	2772	Цэнд-Аюуш, П. Мягмар	1979	
2	3615	М. Хован, Грегус	1983	

8. Airborne magnetic surveys at a scale of 1 to 200,000 in the past

	Report No.	Author	Year	Remarks
1	1762	Бл. Мецивайг	1966	Taking photo copy
2	?		1963-1967	
3	3454	Исаев	1981	Taking photo copy
4	4354	Баяндорж	1990	Taking photo copy
5	4547	Баяндорж	1991	Taking photo copy

9. Ground Geophysical survey in the past

	Report No.	Author	Year	Remarks
1	2347	Дэндэвчулуун	1977	Taking photo copy
2	2591	Дэндэвчулуун	1978	Taking photo copy
3	2987	Дэндэвчулуун	1980	Taking photo copy
4	3614	Фейш	1983	Taking photo copy

## 第2章 衛星画像解析

### 2-1 画像処理及び解析

#### 2-1-1 目的

2年間の計画範囲内全体の広域的な断層・褶曲・貫入岩体の分布等に伴う線構造の把握と鈹化変質帯の抽出を目的として実施された。画像位置はⅡ-2-1図に、画像解析範囲はⅡ-2-2図に示されており、使用画像は計33シーンである。但し画像解析につき万全を期すため計画範囲から一部はみ出す画像についても解析を実施した。

#### 2-1-2 使用データ

CCT購入前に衛星画像の撮影時期や天候に関する検索を行って購入CCTを決定した。その結果、購入されたCCTの諸元についてはⅡ-2-1表(画像解析使用データ一覧表)に示した。

#### 2-1-3 データ処理・解析

購入したCCTは3巻1組(1シーンが通常CCT3巻よりなる)となっており、これから使用する3バンド(4, 5, 7の各バンド)のみを抽出し、1シーン当たり1巻とした。

各シーン毎にこれら3バンドを用いて多変量解析の1種である主成分分析を行い、その後無相関ストレッチと呼ばれる変換を行い、さらにエッジ強調と輝度調整を行った後、4, 5, 7の各バンドに青, 緑, 赤の各色を配しカラーポジフィルムを作成した。カラーポジフィルムの縮尺は100万分の1であるが、それを20万分の1に引き延ばして画像判読に供した。100万分の1の縮尺で作成された画像から作成したモザイク図をⅡ-2-3図(解析画像)として示す。また各シーン毎のカラー画像を巻末の添付資料1~33として示す。

### 2-2 画像判読

#### 2-2-1 リニアメント

リニアメントの判読は、縮尺1/20万の画像毎に、肉眼により地形的特徴と色調から識別された線状の構造を抽出することにより実施した。その際明らかに岩脈や層理に関係した構造は除外するようにつとめた。また、火山活動または火成活動と関連したカーブ状~環状構造も合わせて抽出した。

Ⅱ-2-4図(1~33)に各シーン毎のリニアメント分布図を示す。

東経103°以東では、NE~ENE系とWNW系のリニアメントが卓越する傾向がみられ、連続性の良いものが多い。また、断層を示すと考えられるリニアメントの内、水平成分のズレのセンスが判定できるものは数カ所に存在する。マンガハ村西方40kmでは走向N35°Eで左横ズレを示す2本の断層がみられ、同様のものがマンガルゴビ南方110kmにも分布するが、ここでは走向N55°Wの右横ズレ断層もみられ、これらは共役断層系を形成している可能性がある。同方向の右横ズレ断層はハンボクト村東方にもみられる。これらとは別にノムゴン村南南東には走向E-W

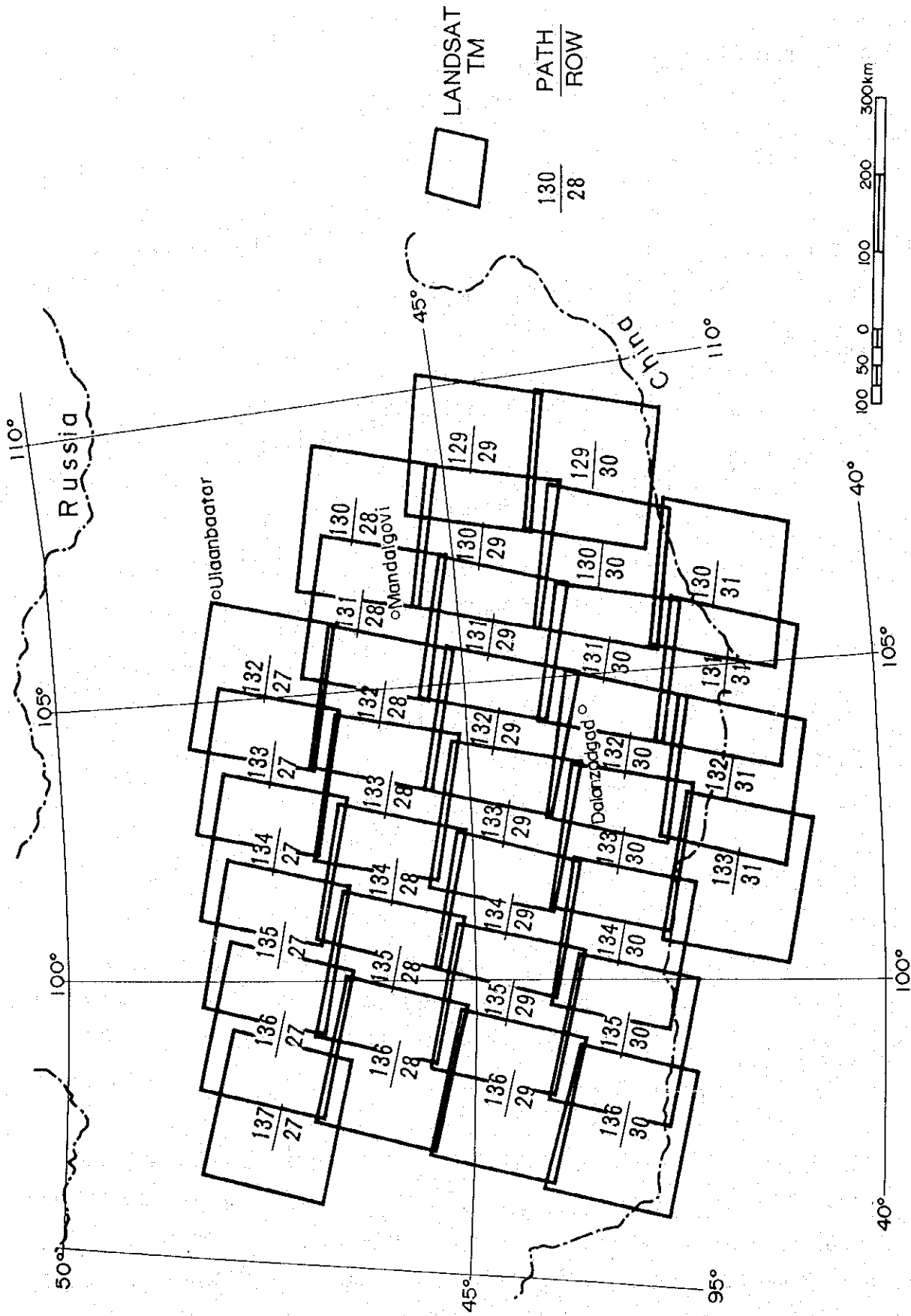


Fig. II-2-1 Location Map of Satellite image

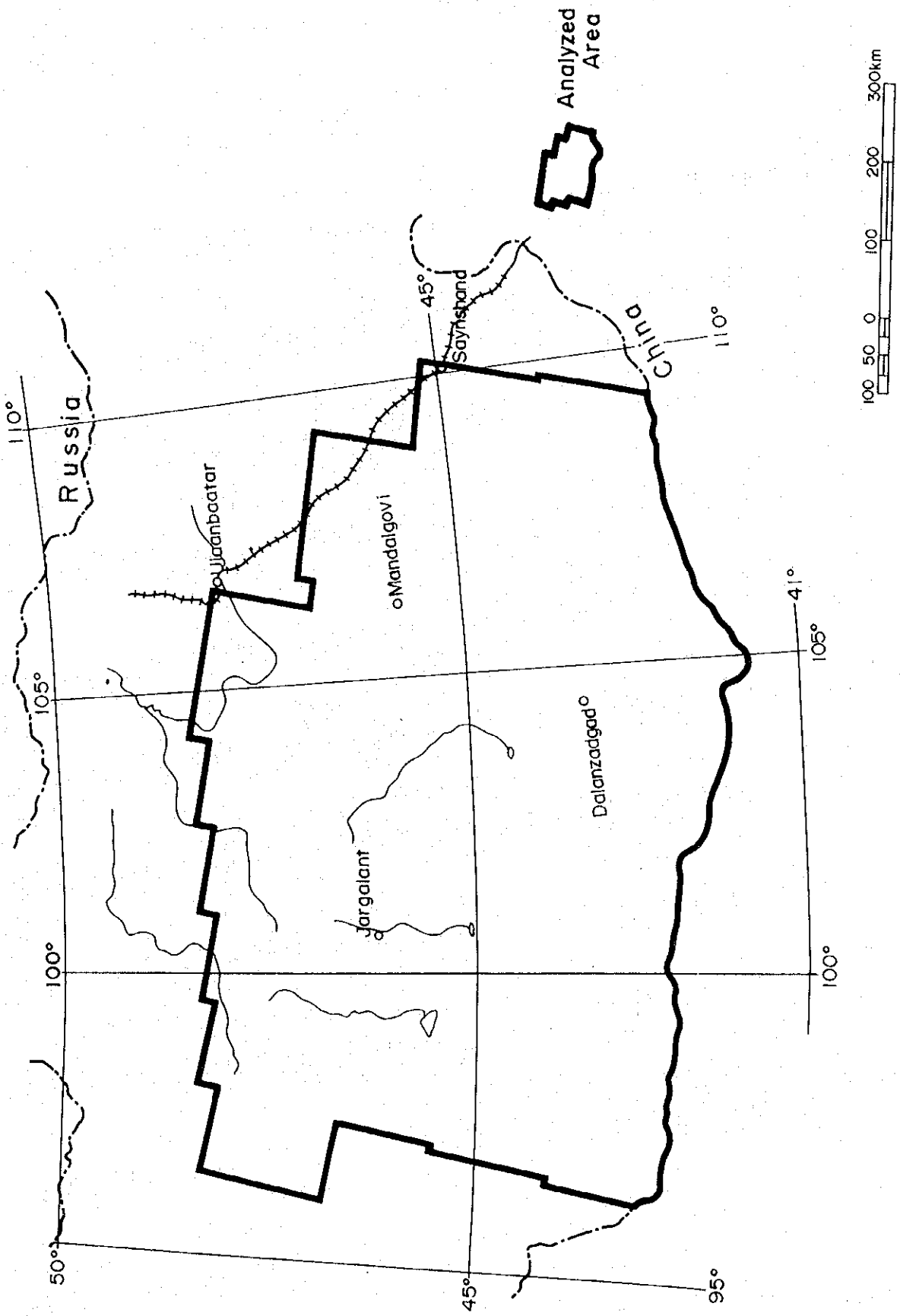


Fig. II-2-2 Analyzed Area by Satellite Image



Table II - 2 - 1 List of Details of Applied Data

No.	Path	Row	Date	CN	Satellite	Distributor
1	129	29	09/20/87	44° 36' 37" N, 108° 50' 21" E	L5	EOSAT
2	129	30	09/06/88	43 11 12 N, 108 20 35 E	L5	CHINA
3	130	28	10/10/89	46 02 11 N, 107 48 34 E	L4	EOSAT
4	130	29	09/03/90	44 37 40 N, 107 17 05 E	L5	EOSAT
5	130	30	12/18/88	43 11 56 N, 105 44 37 E	L5	CHINA
6	130	31	09/27/93	41 46 17 N, 106 19 52 E	L5	CHINA
7	131	28	09/10/90	46 02 36 N, 106 14 22 E	L5	EOSAT
8	131	29	09/10/90	44 37 22 N, 105 43 27 E	L5	EOSAT
9	131	30	09/10/90	43 11 31 N, 105 13 33 E	L5	EOSAT
10	131	31	09/20/88	41 46 34 N, 104 45 04 E	L5	EOSAT
11	132	28	09/17/90	46 02 35 N, 104 41 07 E	L5	EOSAT
12	132	29	09/17/90	44 37 21 N, 104 10 12 E	L5	EOSAT
13	132	30	09/17/90	43 11 29 N, 103 40 18 E	L5	EOSAT
14	132	31	09/17/90	41 46 33 N, 103 11 49 E	L5	EOSAT
15	132	27	09/17/90	47 27 16 N, 105 12 12 E	L5	EOSAT
16	133	27	09/08/90	47 27 13 N, 103 41 30 E	L5	EOSAT
17	133	28	09/08/90	46 02 06 N, 103 09 17 E	L5	EOSAT
18	133	29	10/02/90	44 37 40 N, 102 35 26 E	L4	EOSAT
19	133	30	10/18/93	43 10 20 N, 102 10 20 E	L5	CHINA
20	133	31	09/08/90	41 46 08 N, 101 40 02 E	L5	EOSAT
21	134	27	10/20/91	47 27 30 N, 102 10 00 E	L5	CHINA
22	134	28	25/08/94	46 01 51 N, 101 36 22 E	L5	CHINA
23	134	29	25/08/94	44 36 57 N, 101 05 39 E	L5	CHINA
24	134	30	10/06/92	43 11 00 N, 100 32 00 E	L5	CHINA
25	135	27	08/21/90	47 27 08 N, 100 36 08 E	L5	EOSAT
26	135	28	08/21/90	46 02 09 N, 100 03 56 E	L5	EOSAT
27	135	29	10/24/90	44 37 15 N, 99 31 30 E	L5	CHINA
28	135	30	10/24/90	43 12 30 N, 99 02 10 E	L5	CHINA
29	136	27	02/20/91	47 26 41 N, 99 07 08 E	L5	EOSAT
30	136	28	03/24/91	46 01 48 N, 98 33 22 E	L5	EOSAT
31	136	29	03/24/91	44 36 48 N, 98 02 24 E	L5	EOSAT
32	136	30	03/24/91	43 10 57 N, 97 32 20 E	L5	EOSAT
33	137	27	02/27/91	47 26 37 N, 97 34 36 E	L5	EOSAT

CN: Coordinate of Central Point in Each Scenes

TM Sensor were available for every scenes.

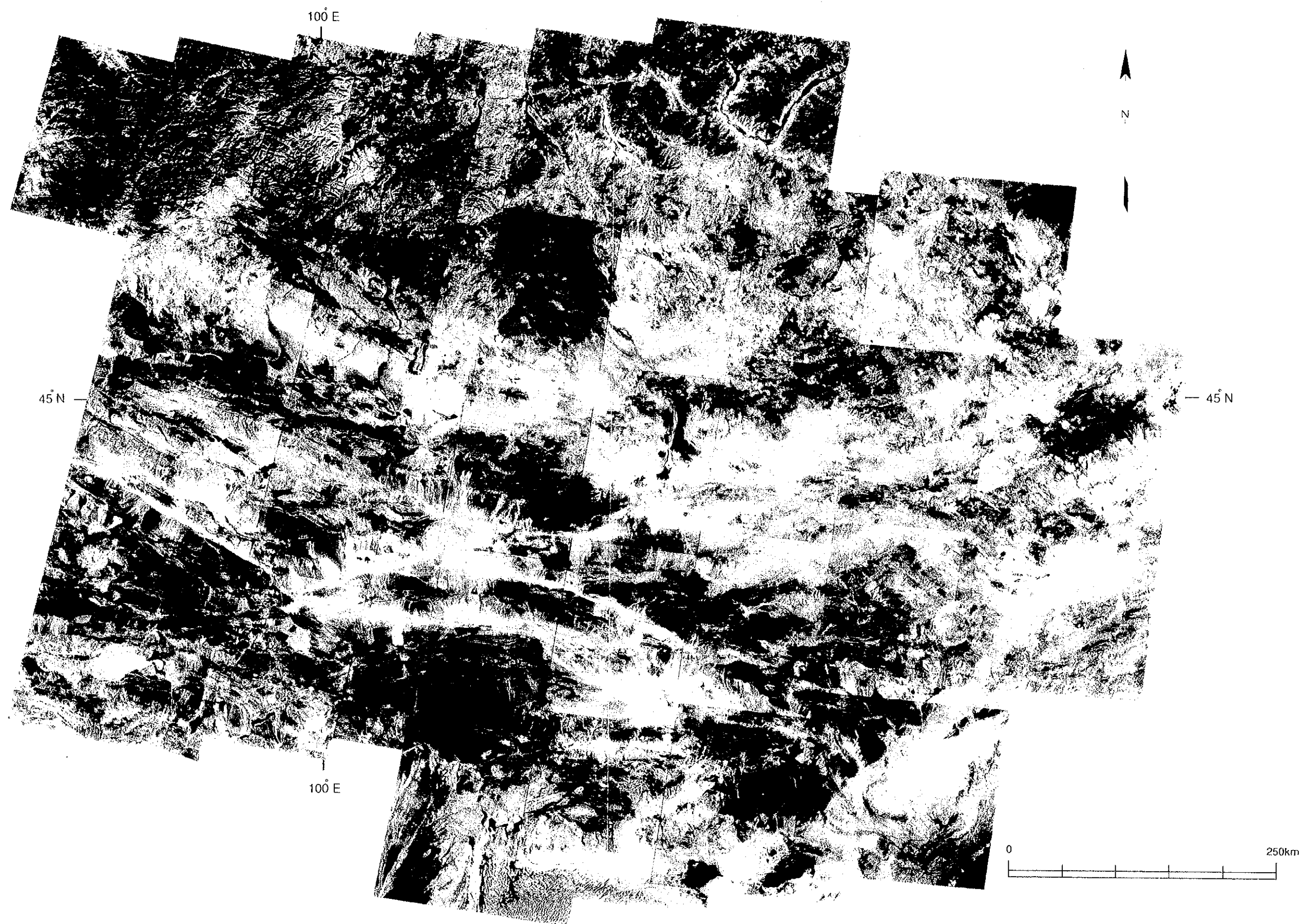
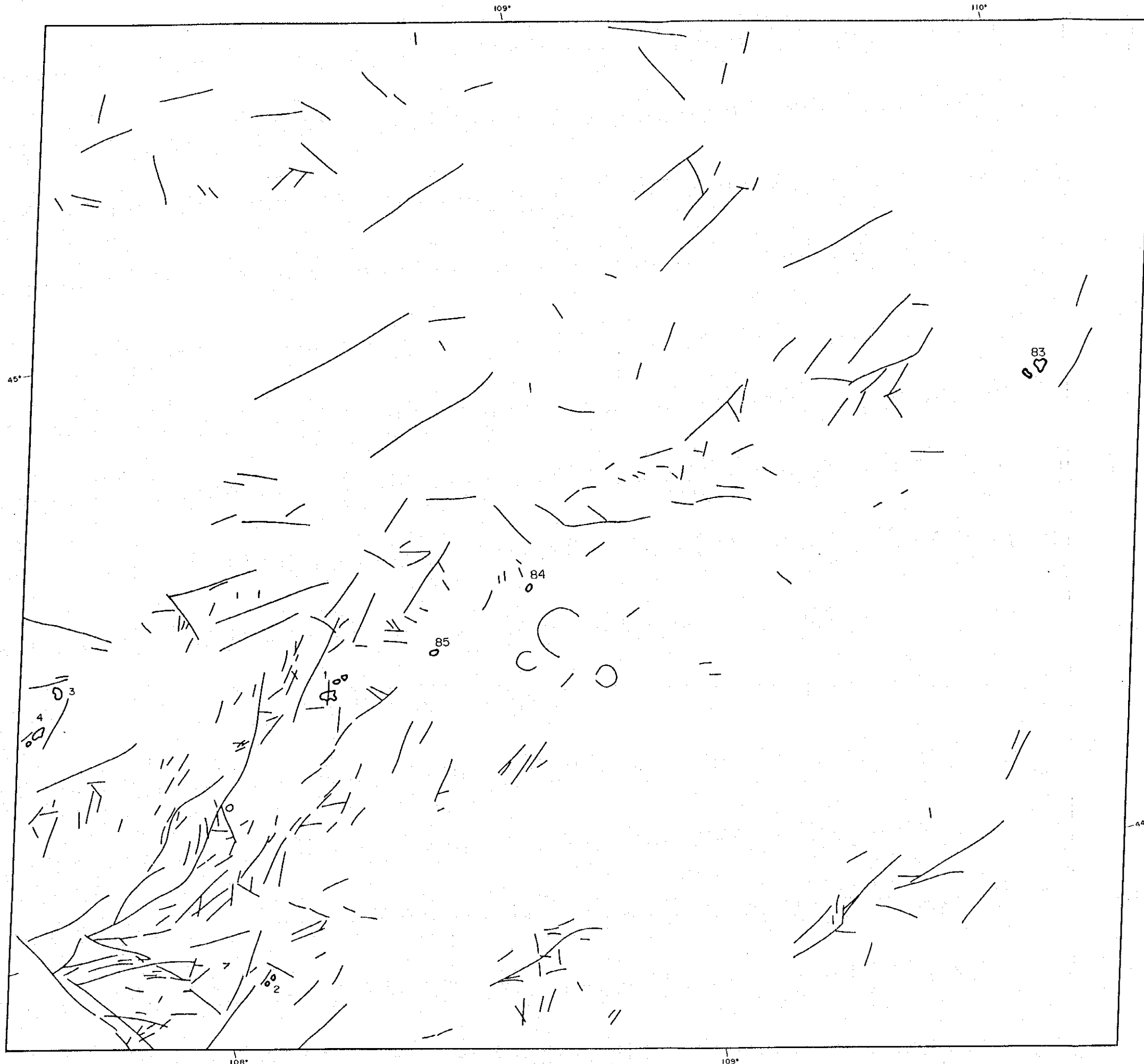


Fig. II - 2 - 3 Analyzed Mosaic Image of the Projected Area



Legend




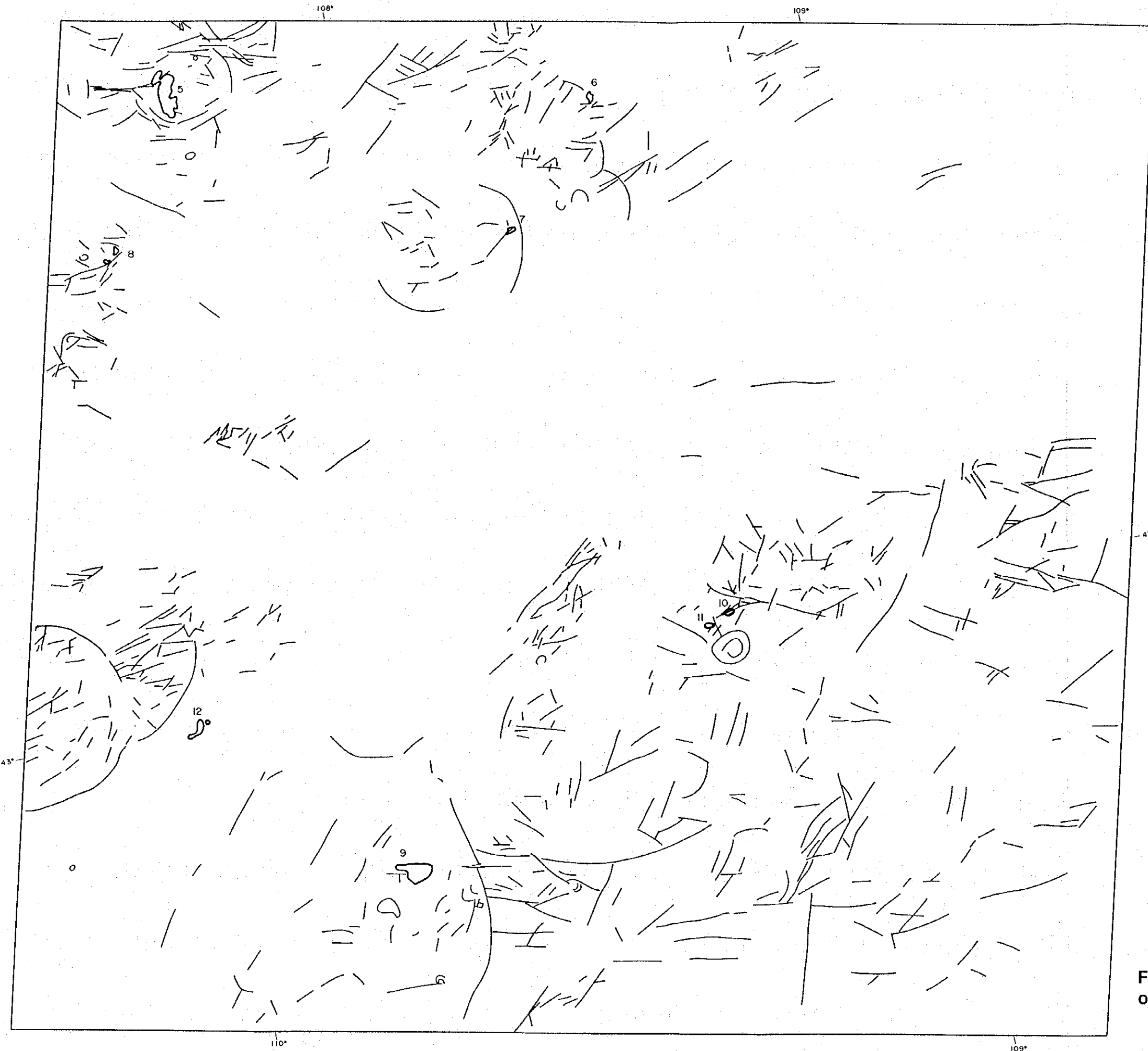



-  Lineament
-  Circular structure
-  Altered area and number



Fig. II-2-4(1) Distribution Map of Linear Structure (P129/R29)



Legend

-  Lineament
-  Circular structure
-  Altered area and number

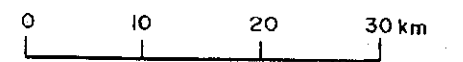
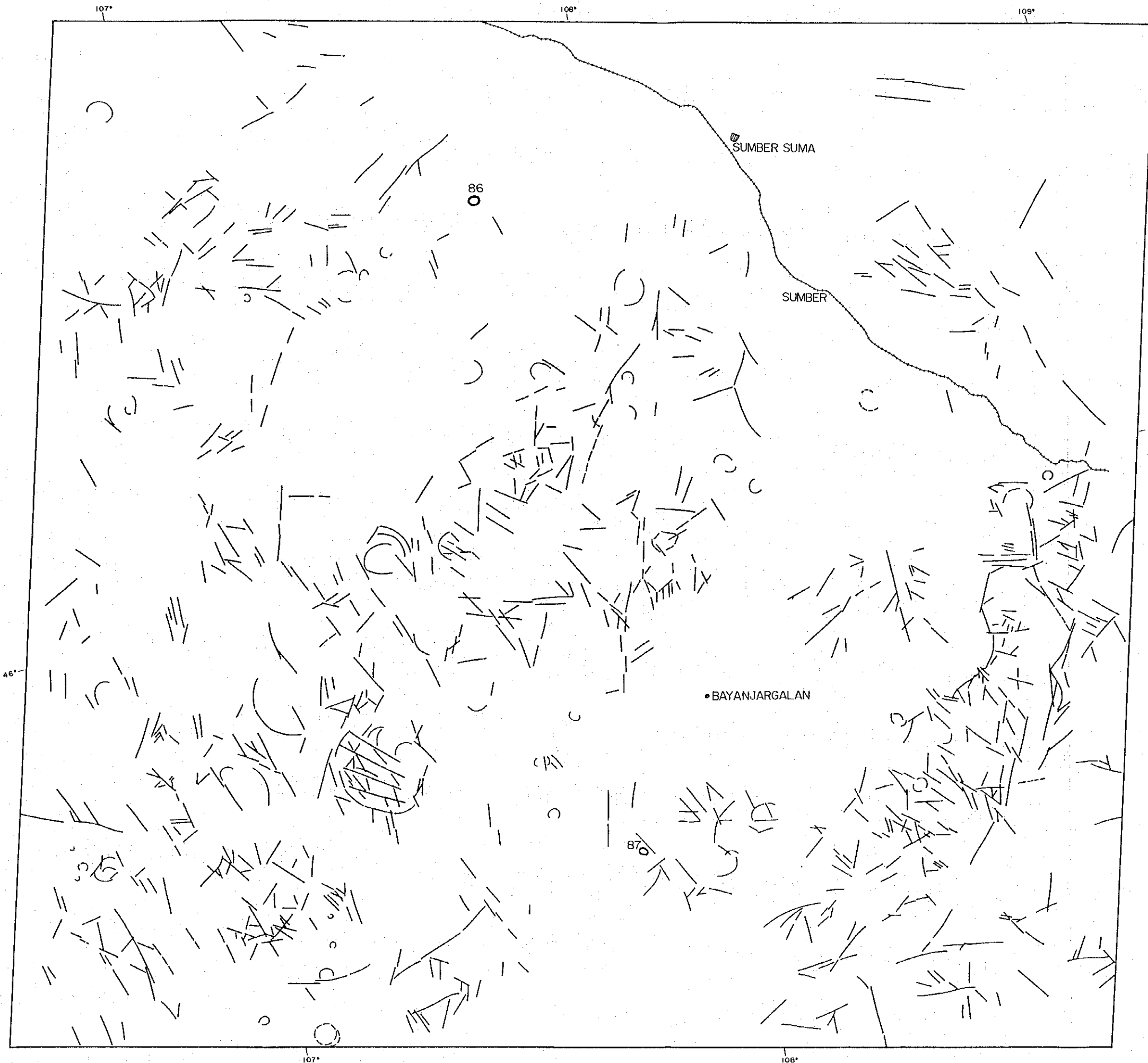





Fig. II-2-4(2) Distribution Map of Linear Structure (P129/R30)



- Legend
-  Lineament
  -  Circular structure
  -  Altered area and number

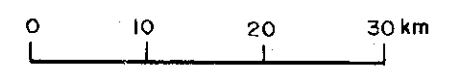


Fig. II-2-4(3) Distribution Map of Linear Structure (P130/R28)

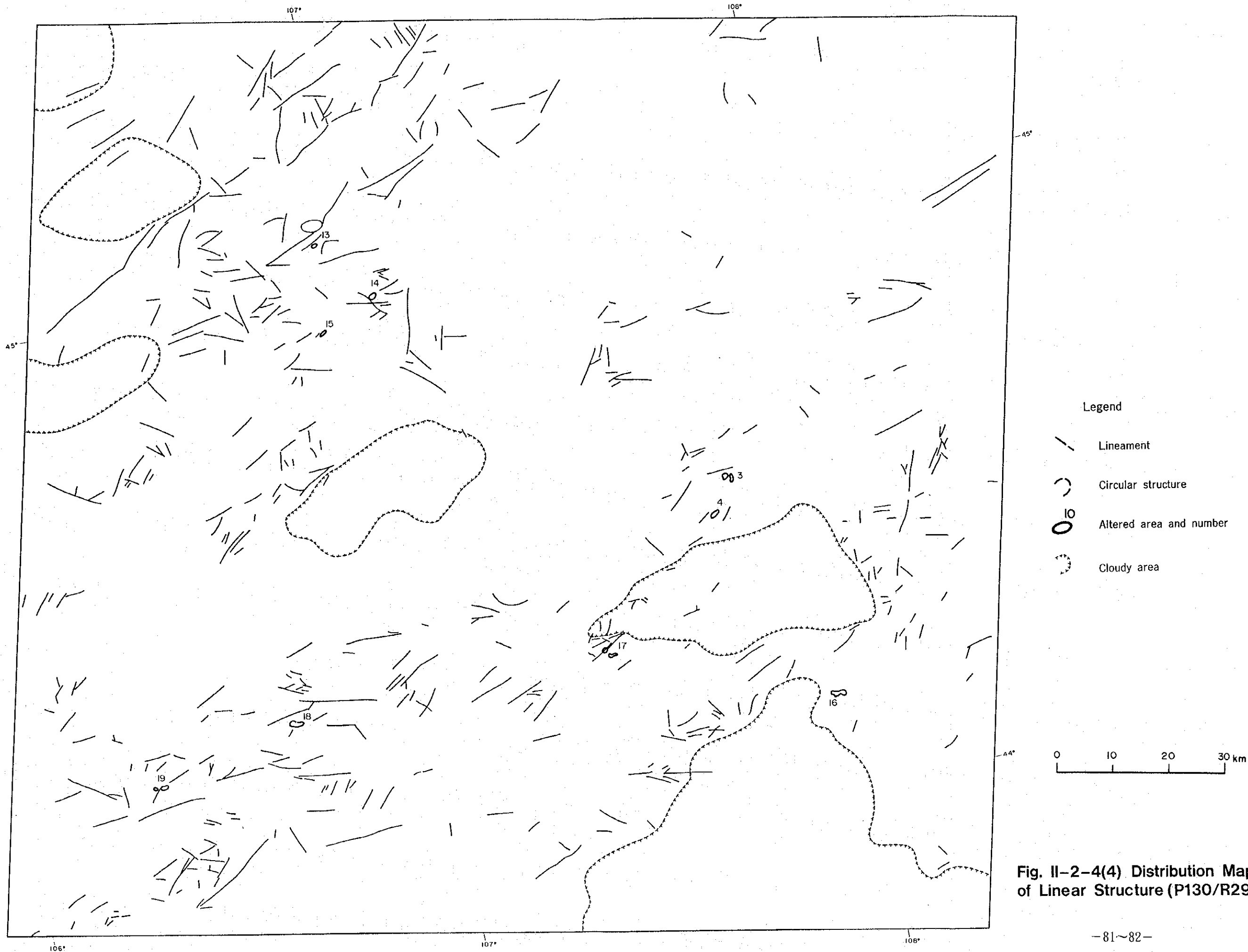
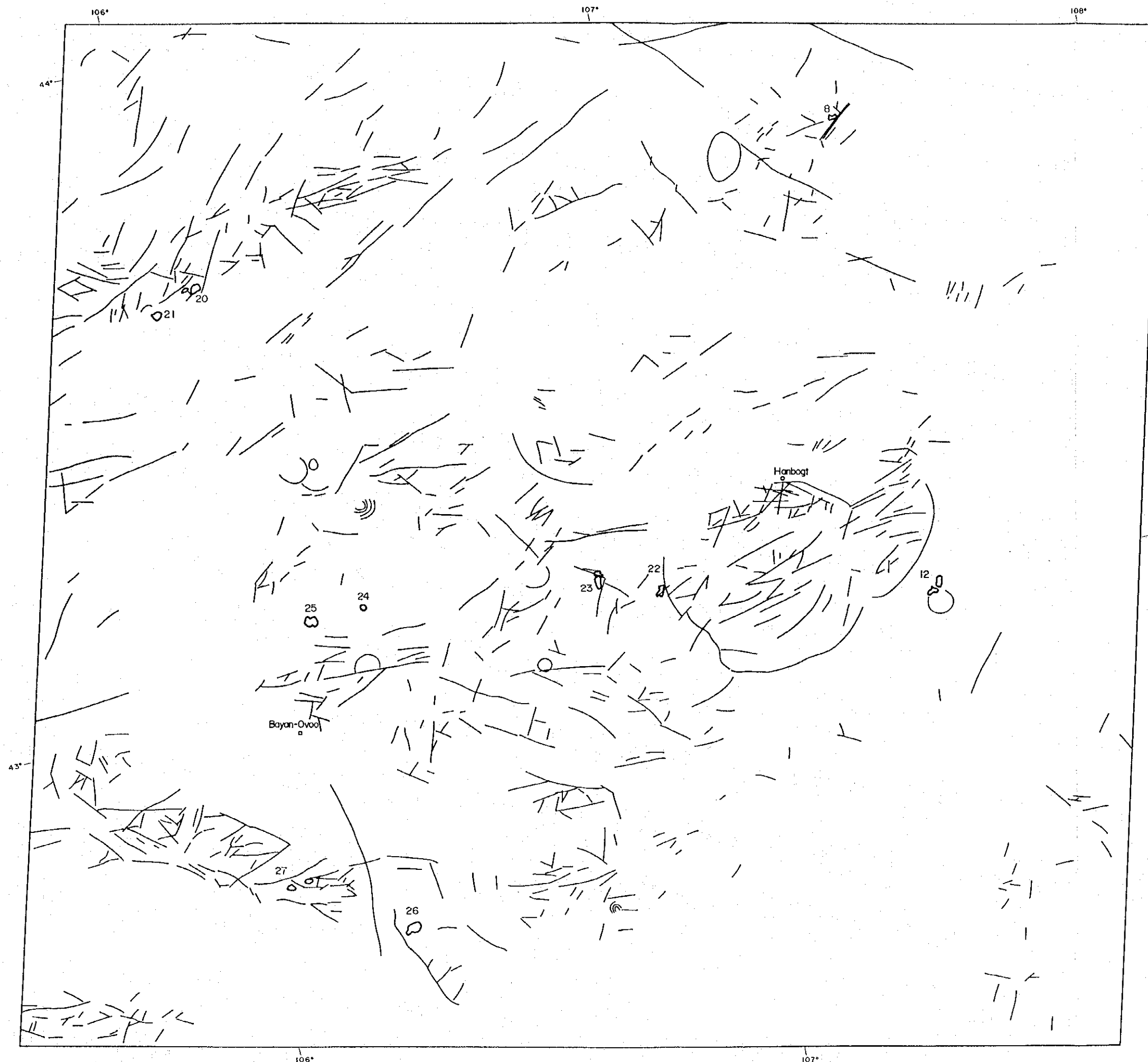





Fig. II-2-4(4) Distribution Map of Linear Structure (P130/R29)



Legend

-  Lineament
-  Circular structure
-  Altered area and number

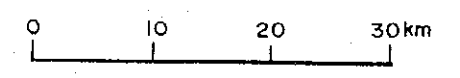


Fig. II-2-4(5) Distribution Map of Linear Structure (P130/R30)

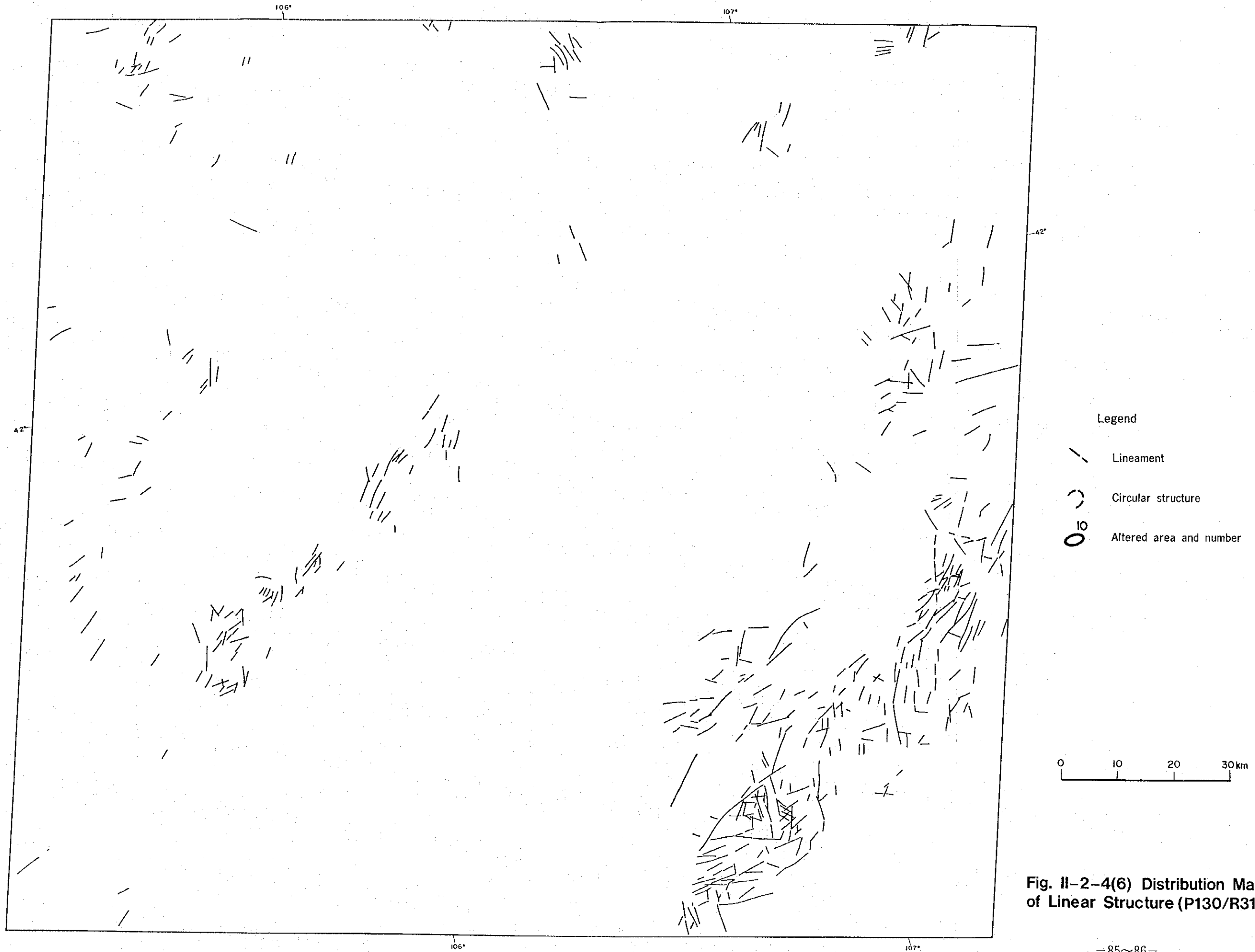
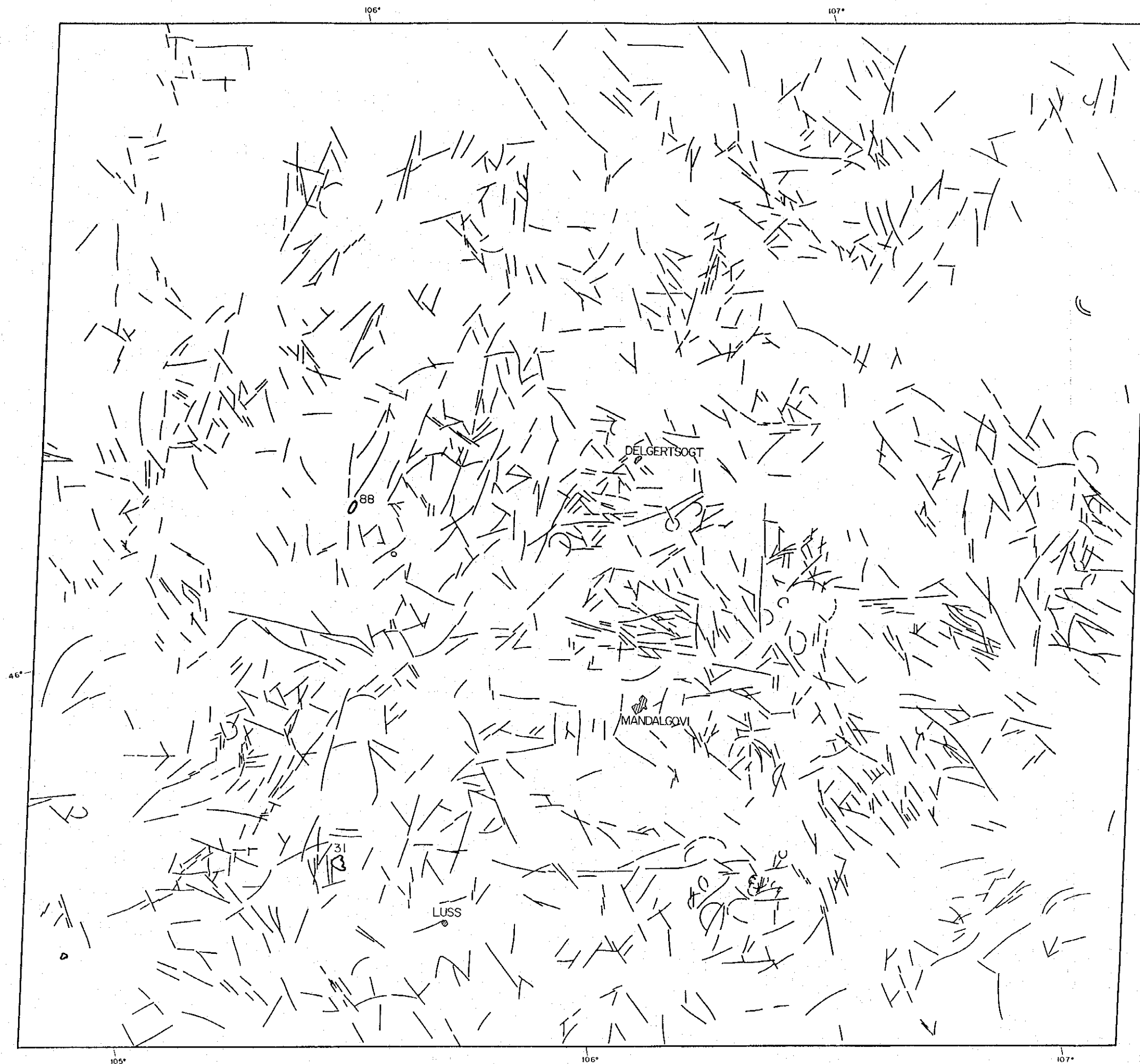


Fig. II-2-4(6) Distribution Map of Linear Structure (P130/R31)





Legend




-  Lineament
-  Circular structure
-  Altered area and number



Fig. II-2-4(7) Distribution Map of Linear Structure (P131/R28)

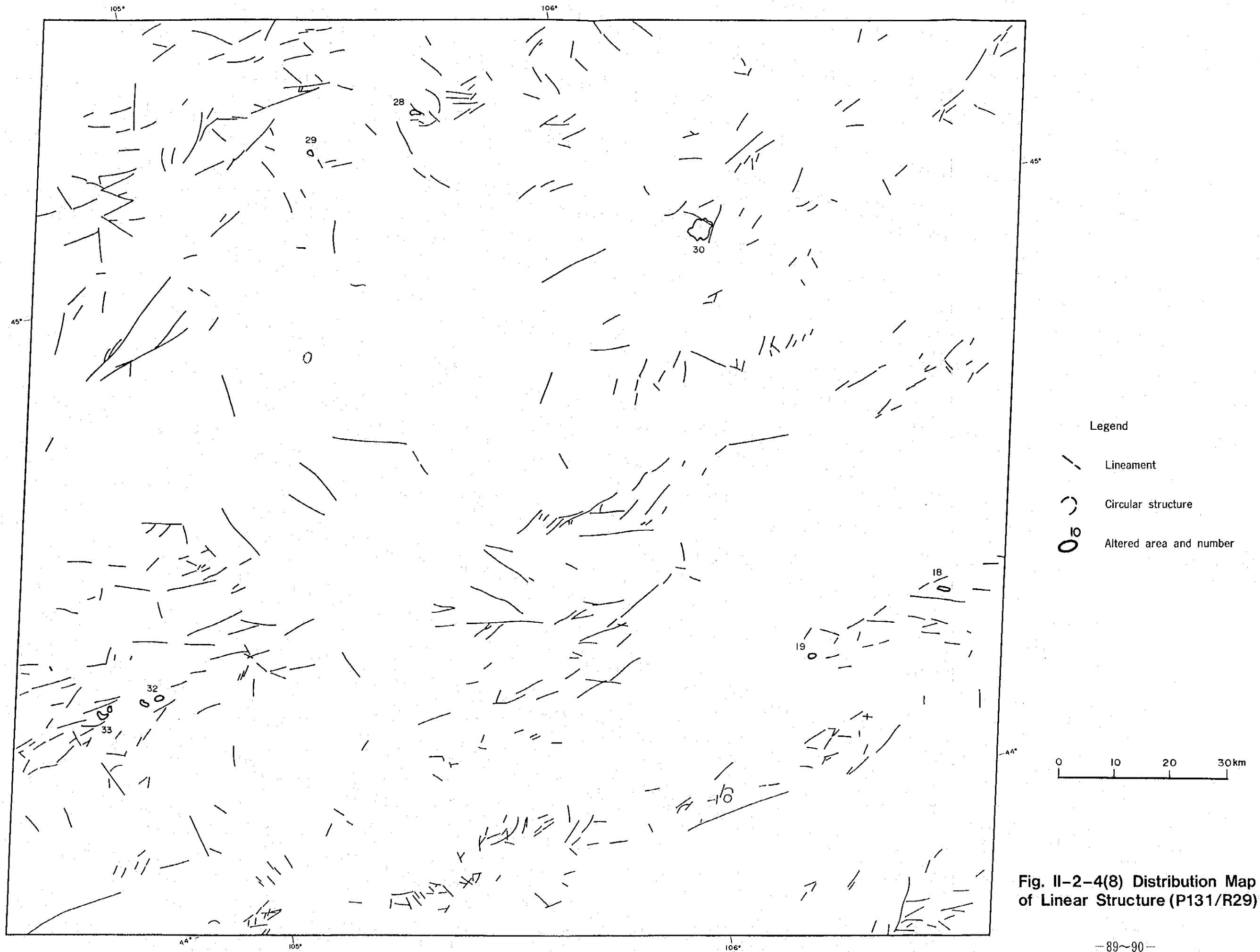
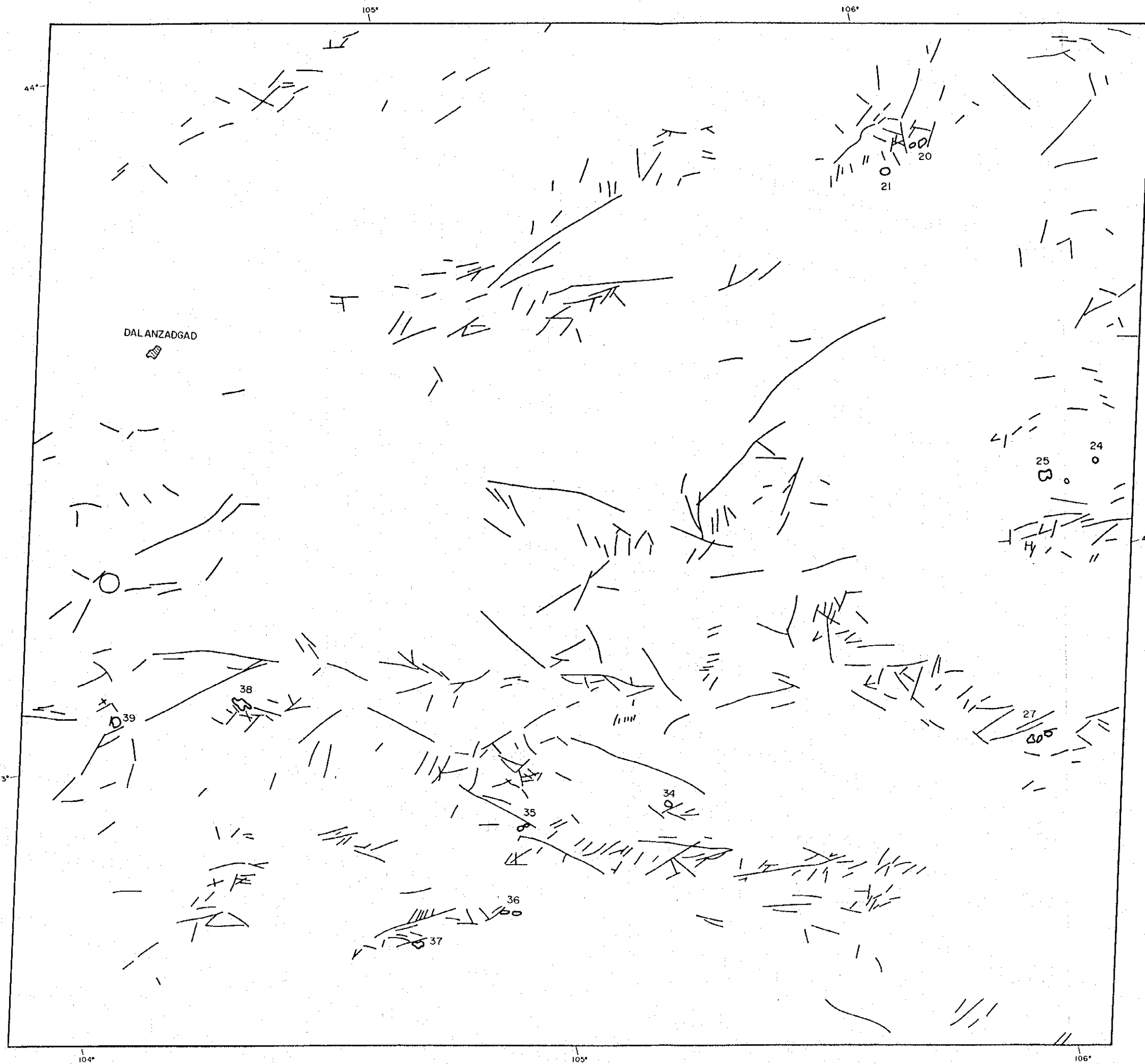





Fig. II-2-4(8) Distribution Map of Linear Structure (P131/R29)



Legend

-  Lineament
-  Circular structure
-  Altered area and number

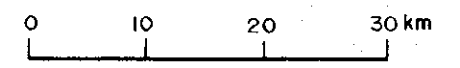
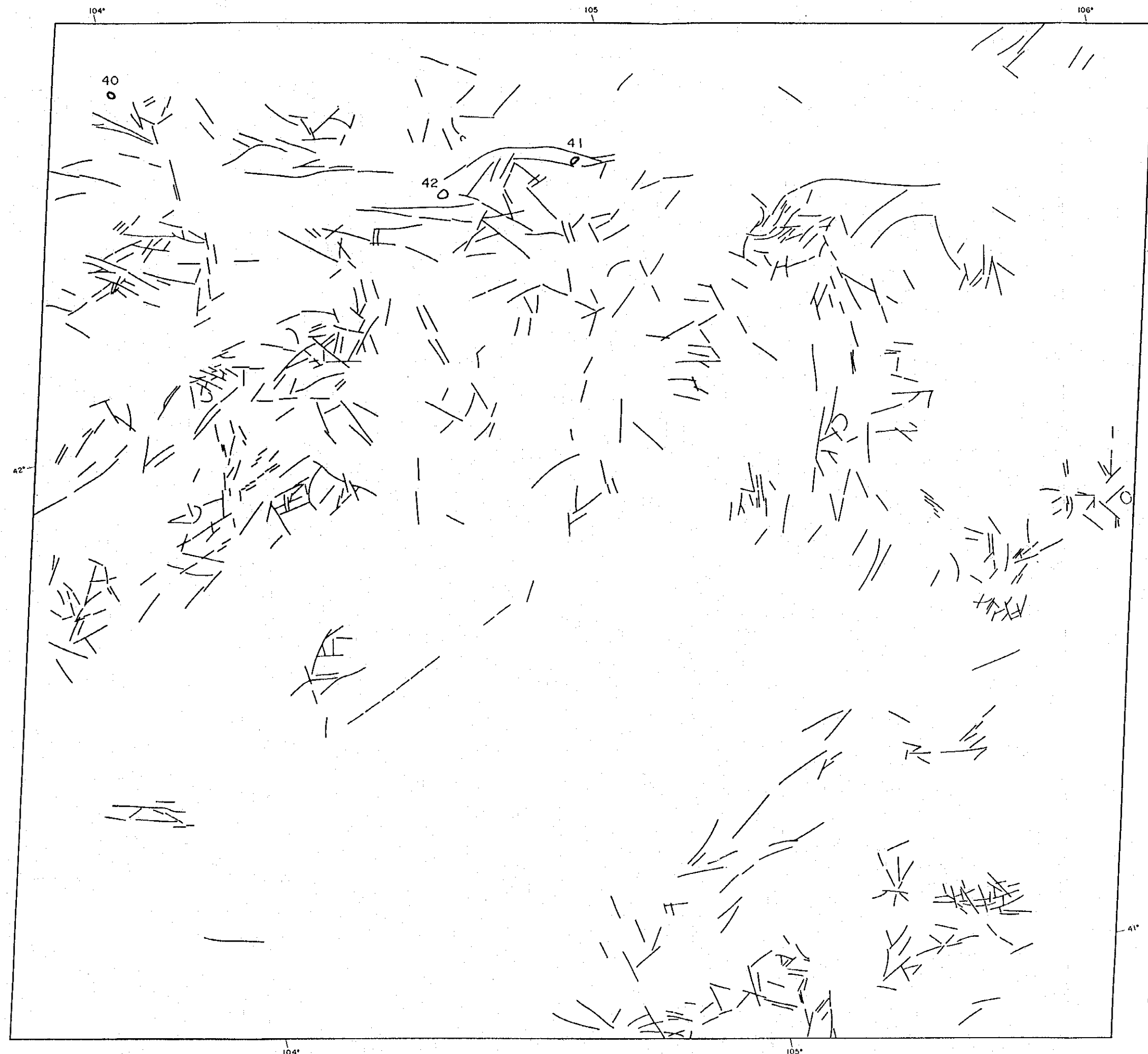


Fig. II-2-4(9) Distribution Map of Linear Structure (P131/R30)



Legend




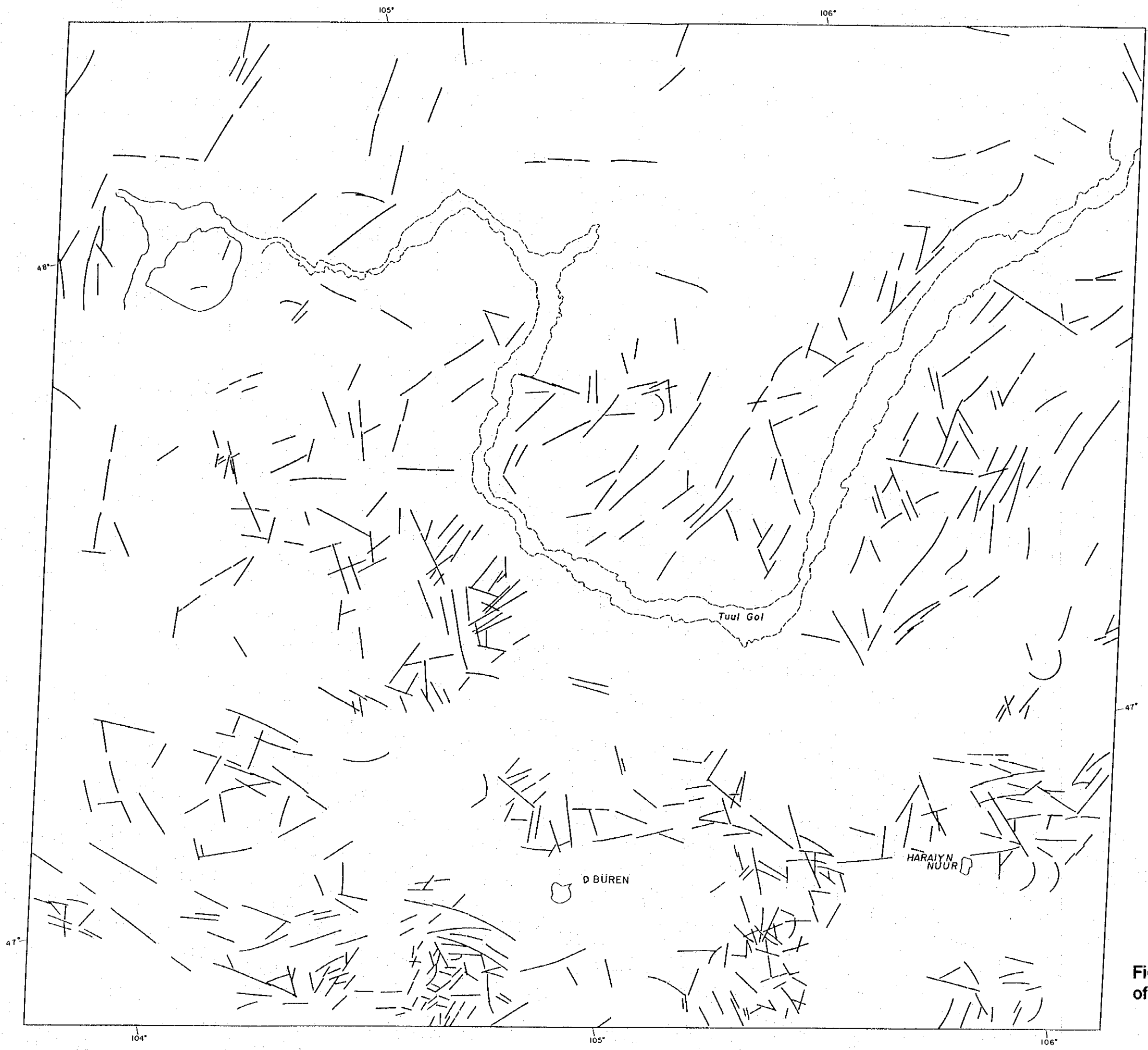



-  Lineament
-  Circular structure
-  Altered area and number



Fig. II-2-4(10) Distributon Map of Linear Structure (P131/R31)



- Legend
-  Lineament
  -  Circular structure
  -  Altered area and number

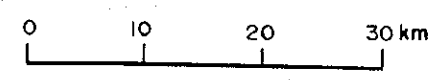


Fig. II-2-4(11) Distributon Map of Linear Structure (P132/R27)

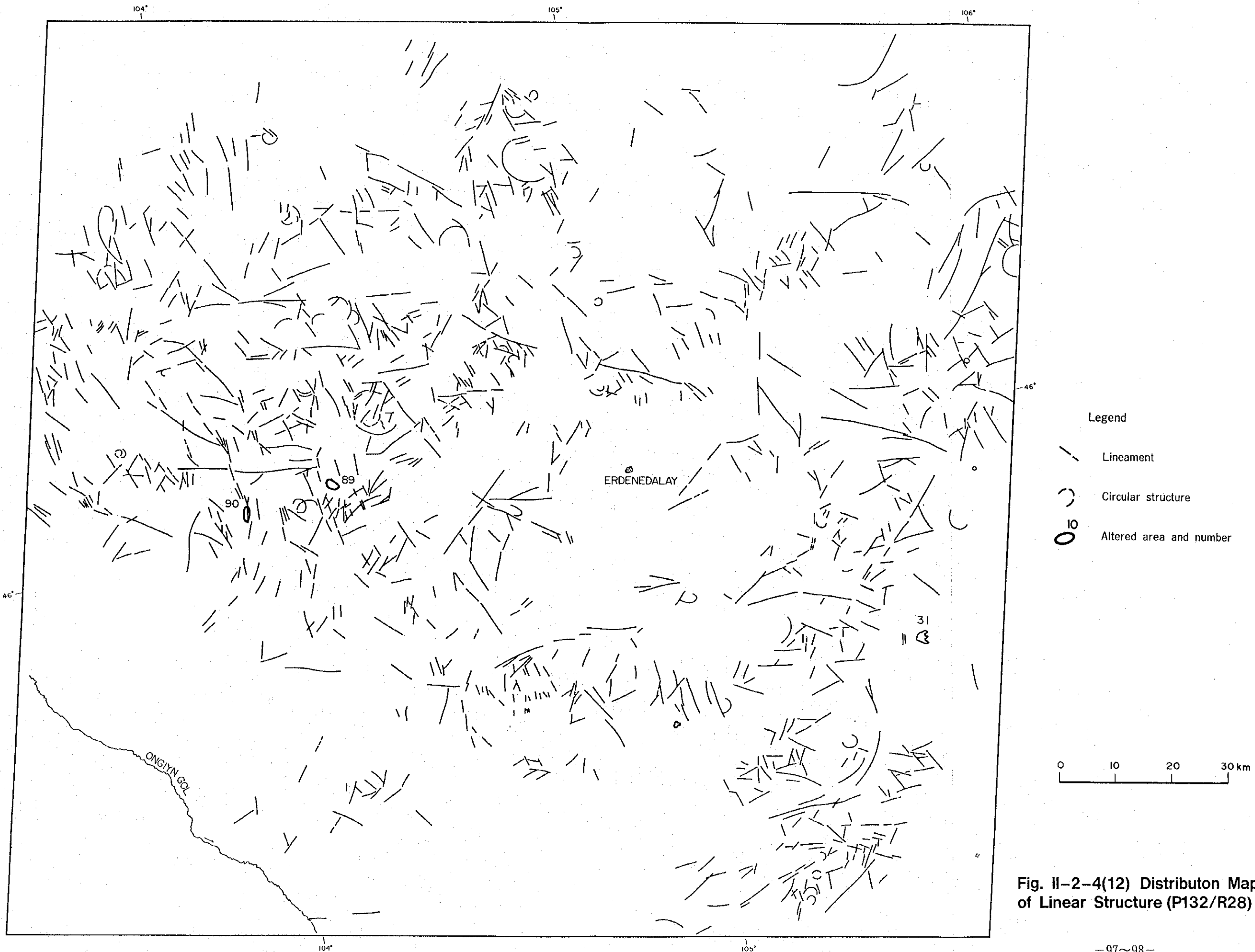


Fig. II-2-4(12) Distributon Map of Linear Structure (P132/R28)

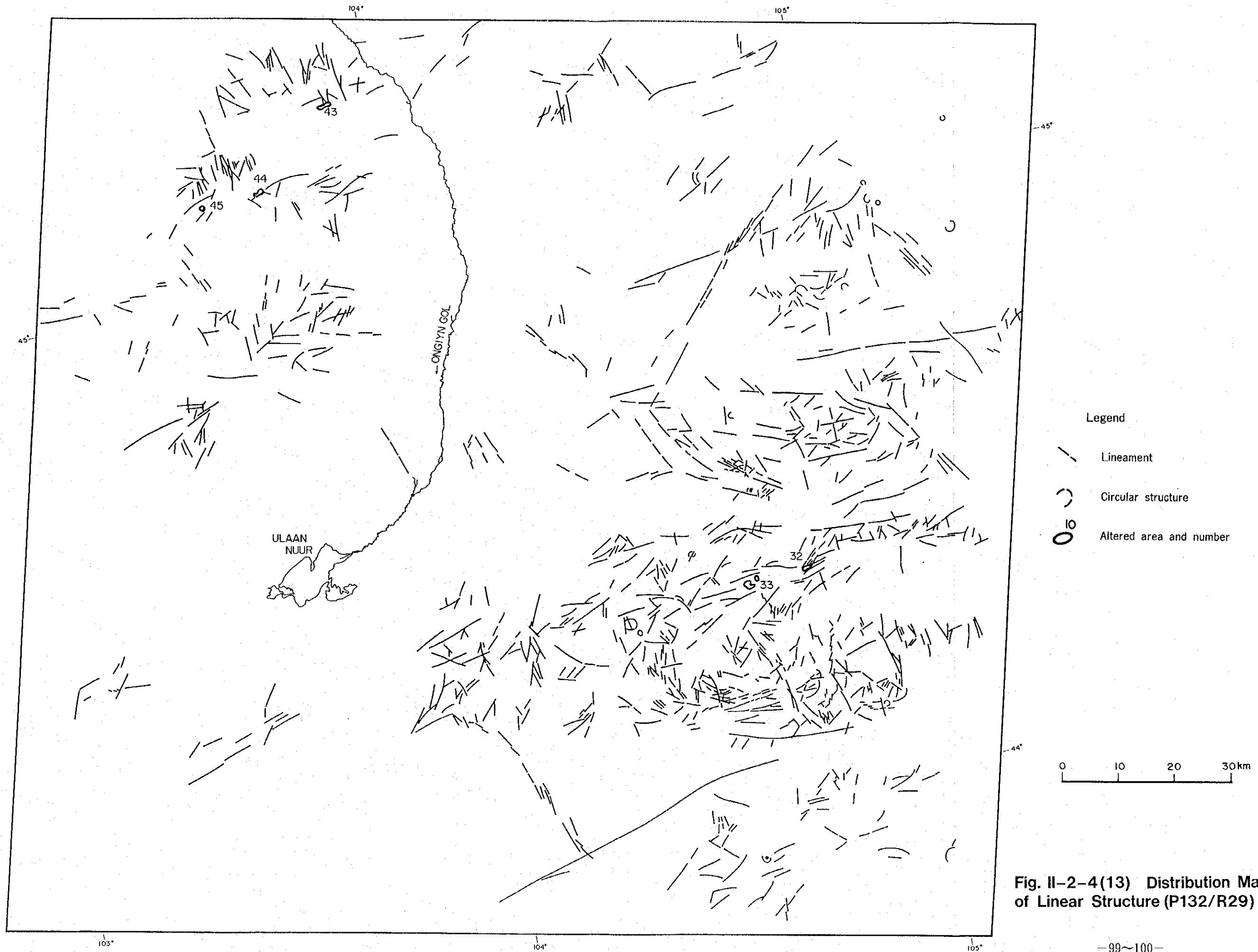
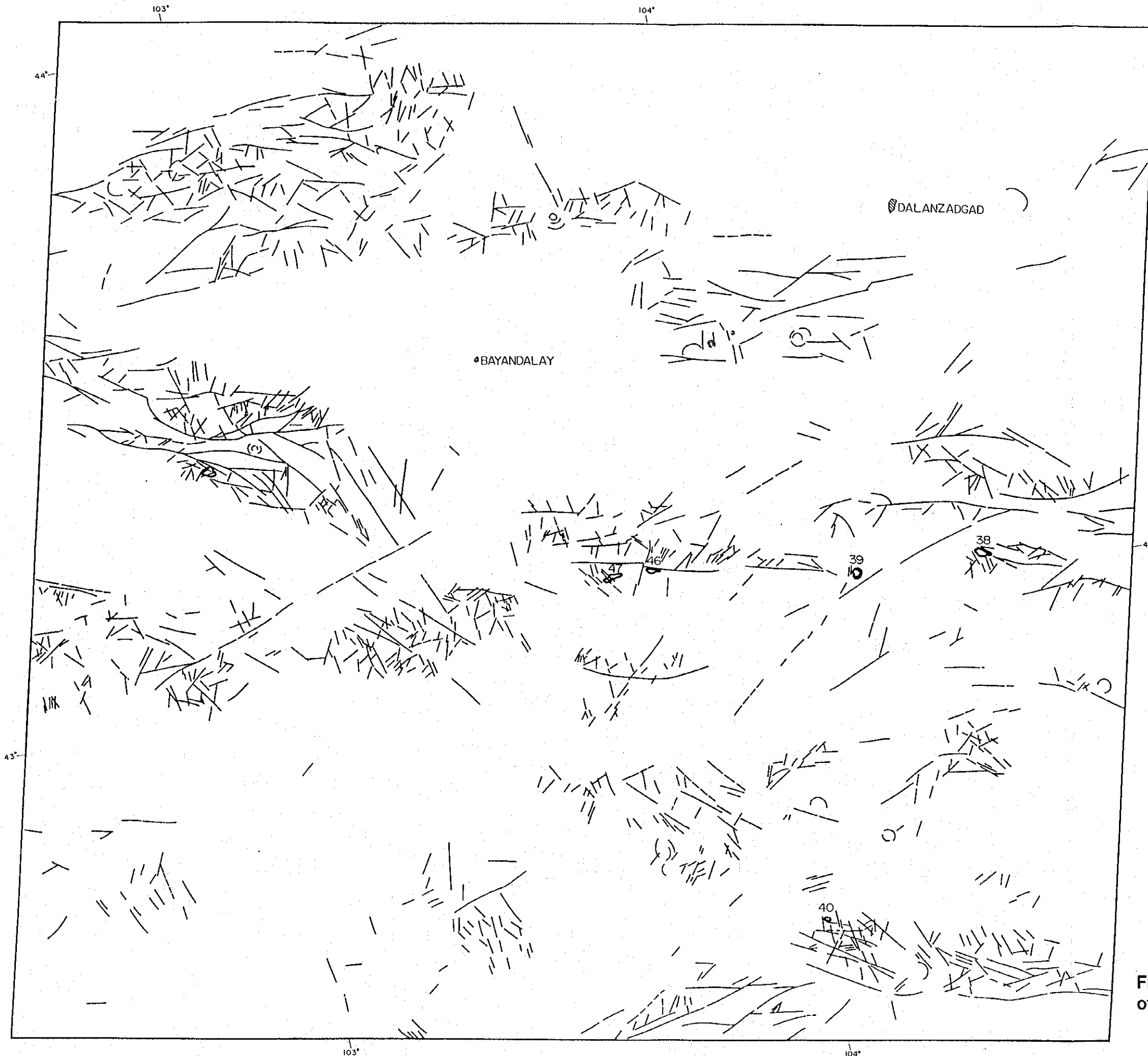





Fig. II-2-4(13) Distribution Map of Linear Structure (P132/R29)



Legend

-  Lineament
-  Circular structure
-  Altered area and number

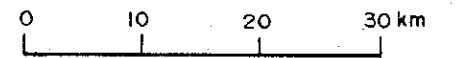
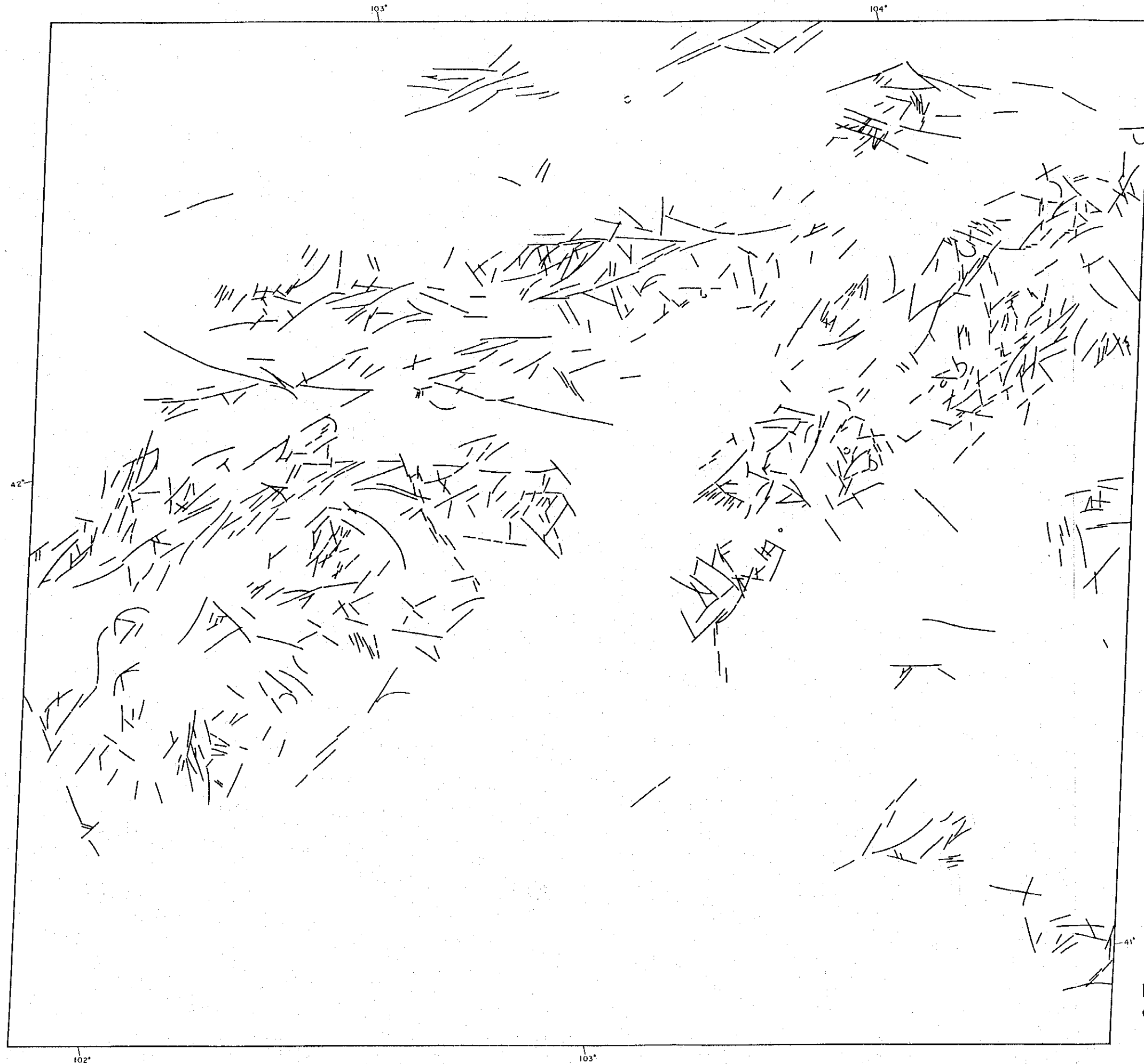





Fig. II-2-4(14) Distribution Map of Linear Structure (P132/R30)





- Legend
-  Lineament
  -  Circular structure
  -  Altered area and number

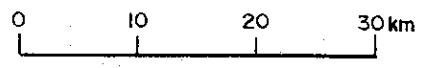
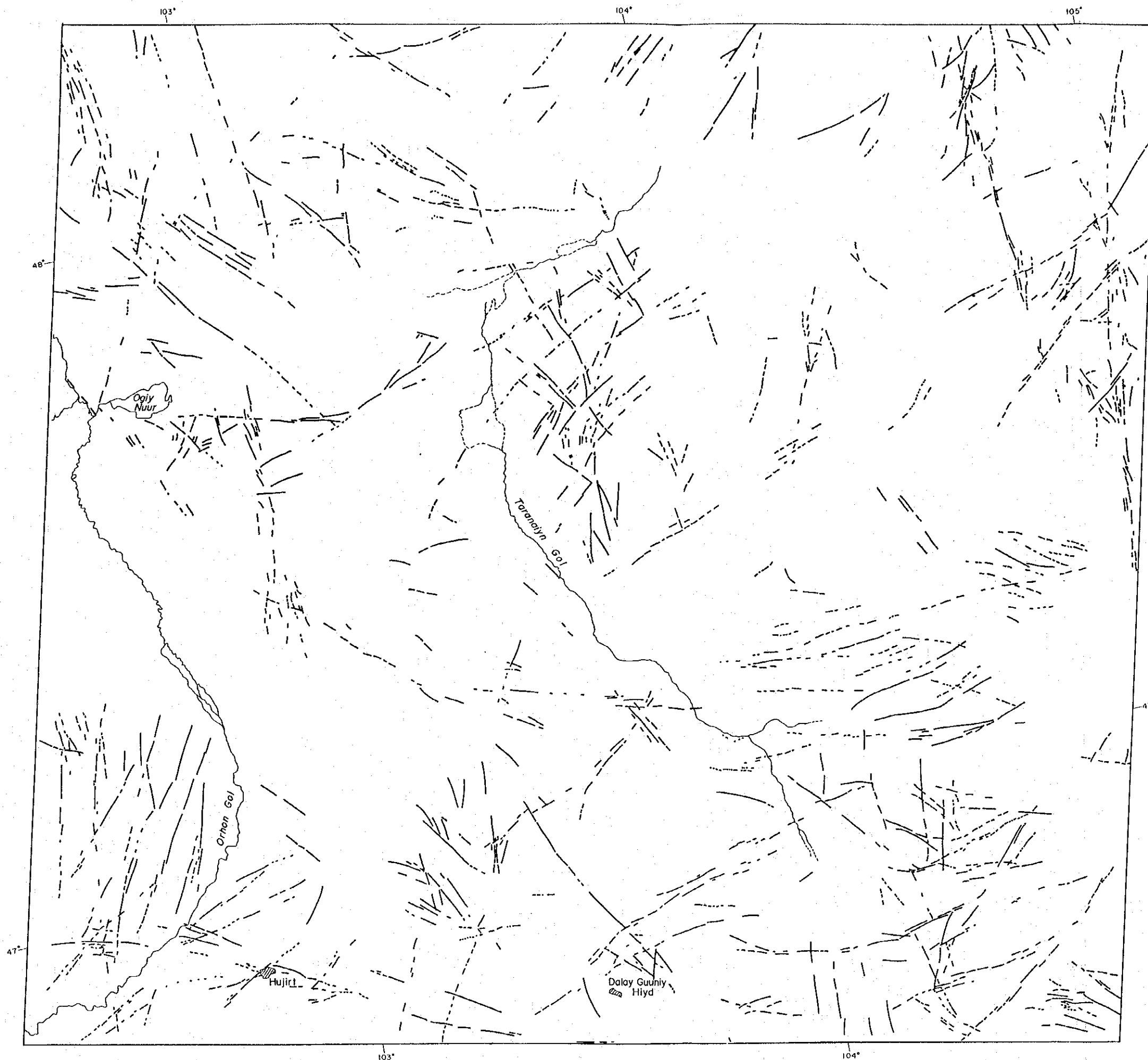





Fig. II-2-4(15) Distribution Map of Linear Structure (P132/R31)



- Legend
-  Lineament
  -  Circular structure
  -  Altered area and number

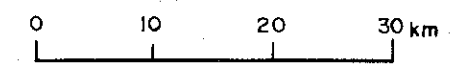
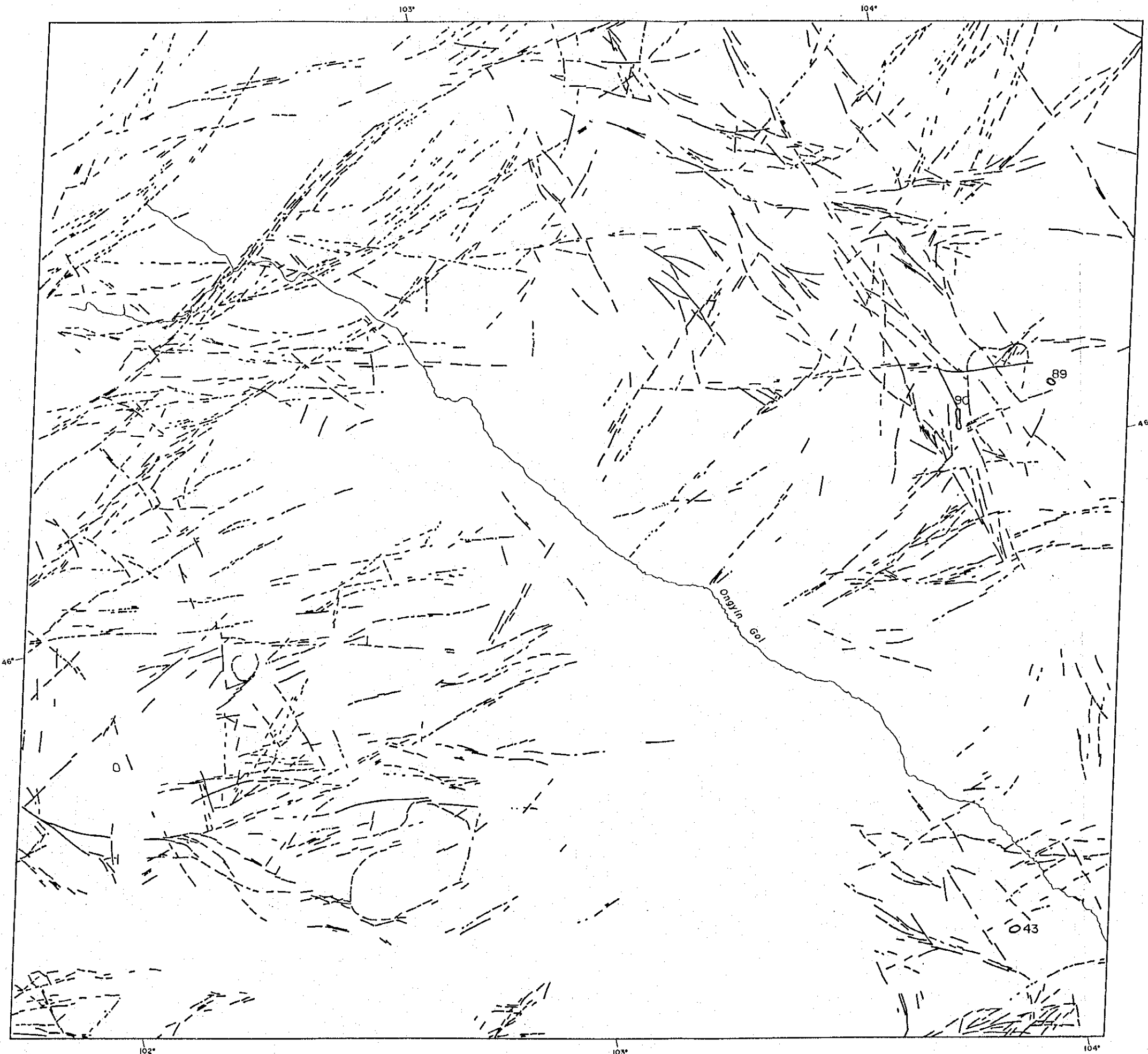





Fig. II-2-4(16) Distribution Map of Linear Structure (P133/R27)



Legend

-  Lineament
-  Circular structure
-  Altered area and number

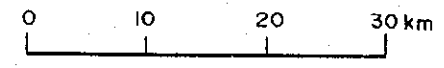
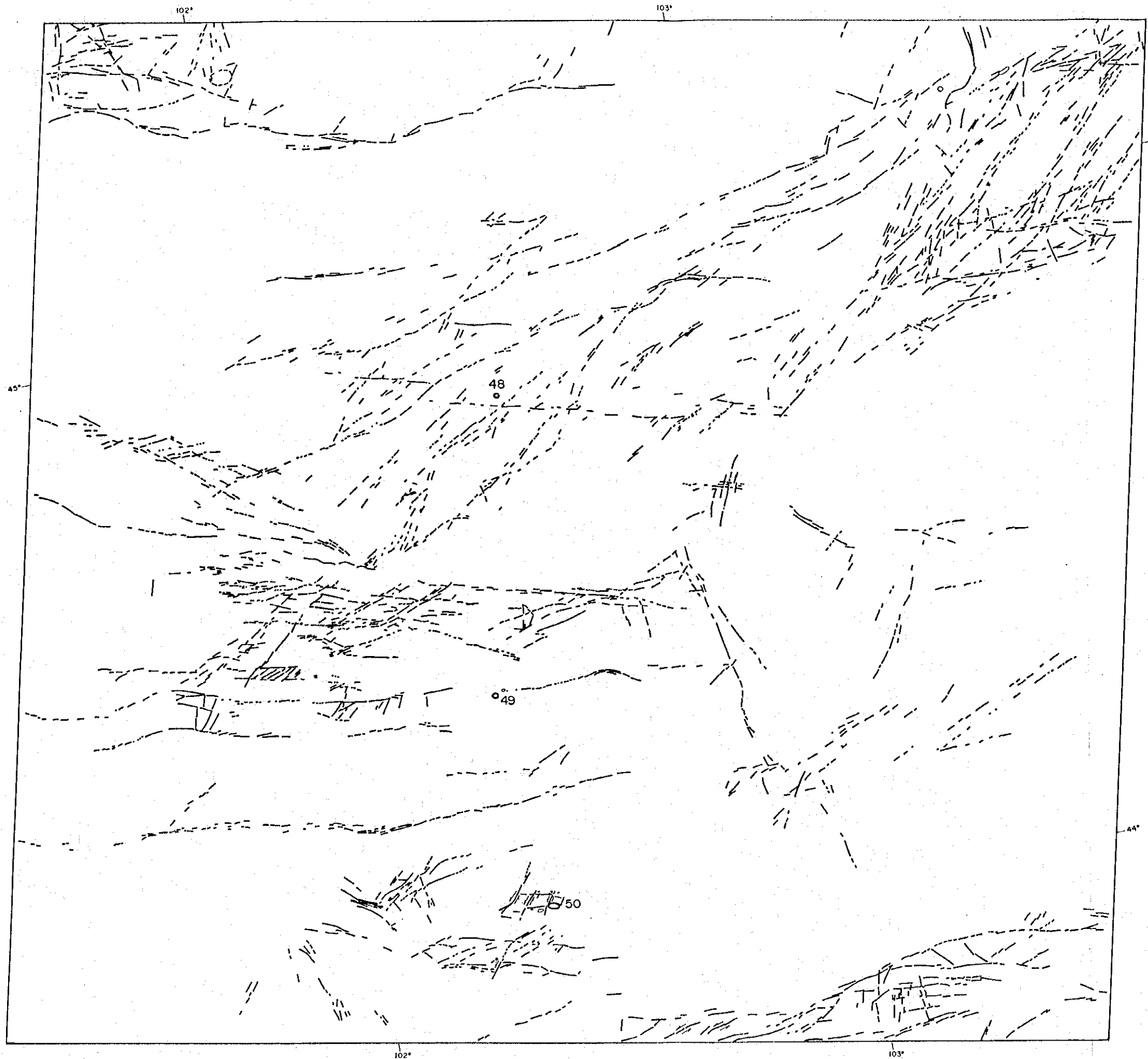





Fig. II-2-4(17) Distribution Map of Linear Structure (P133/R28)



Legend

-  Lineament
-  Circular structure
-  Altered area and number

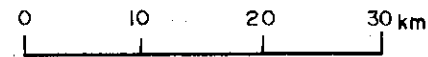
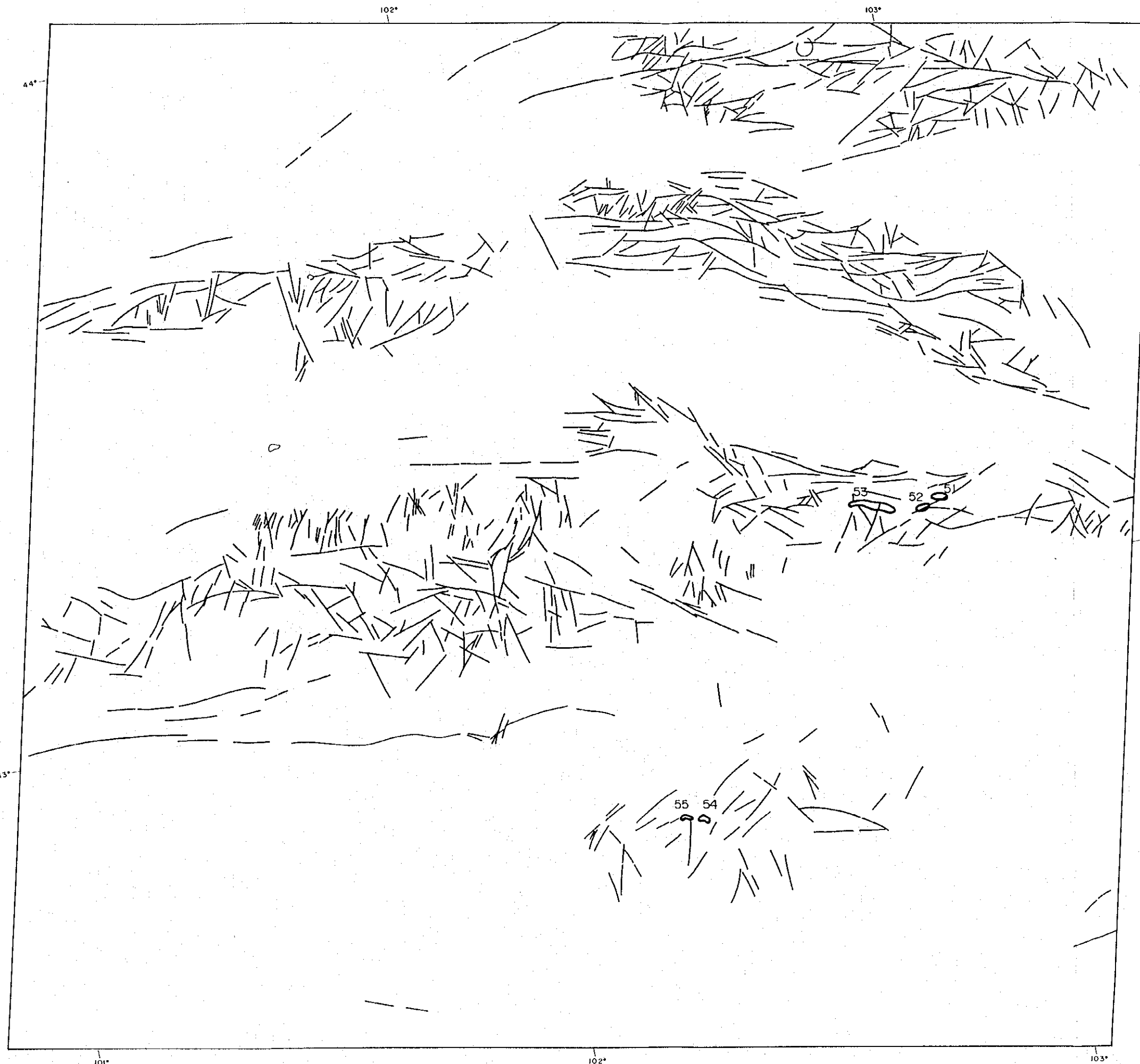


Fig. II-2-4(18) Distribution Map of Linear Structure (P133/R29)



Legend




-  Lineament
-  Circular structure
-  Altered area and number



Fig. II-2-4(19) Distribution Map of Linear Structure (P133/R30)

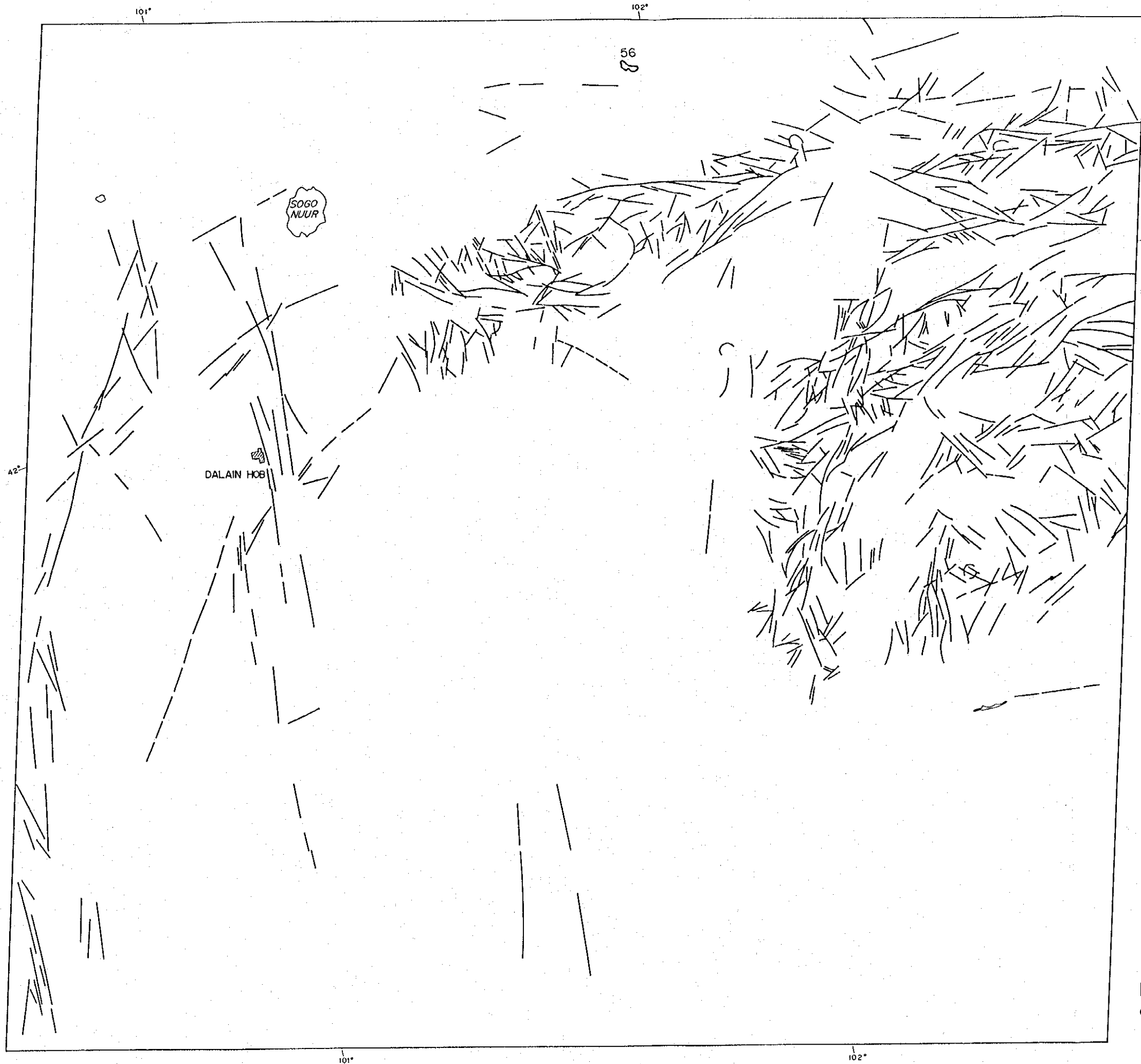


Fig. II-2-4(20) Distribution Map of Linear Structure (P133/R31)

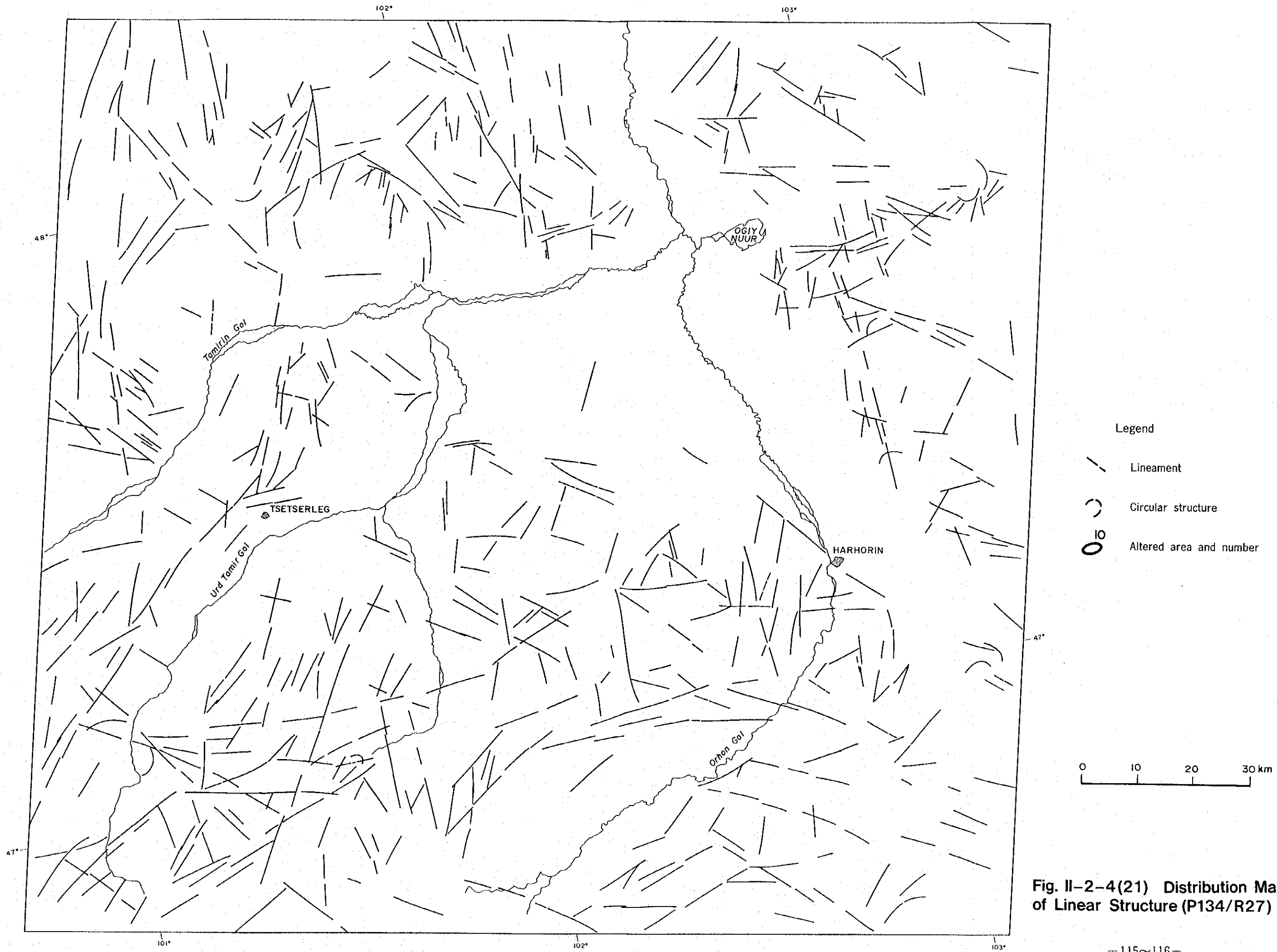
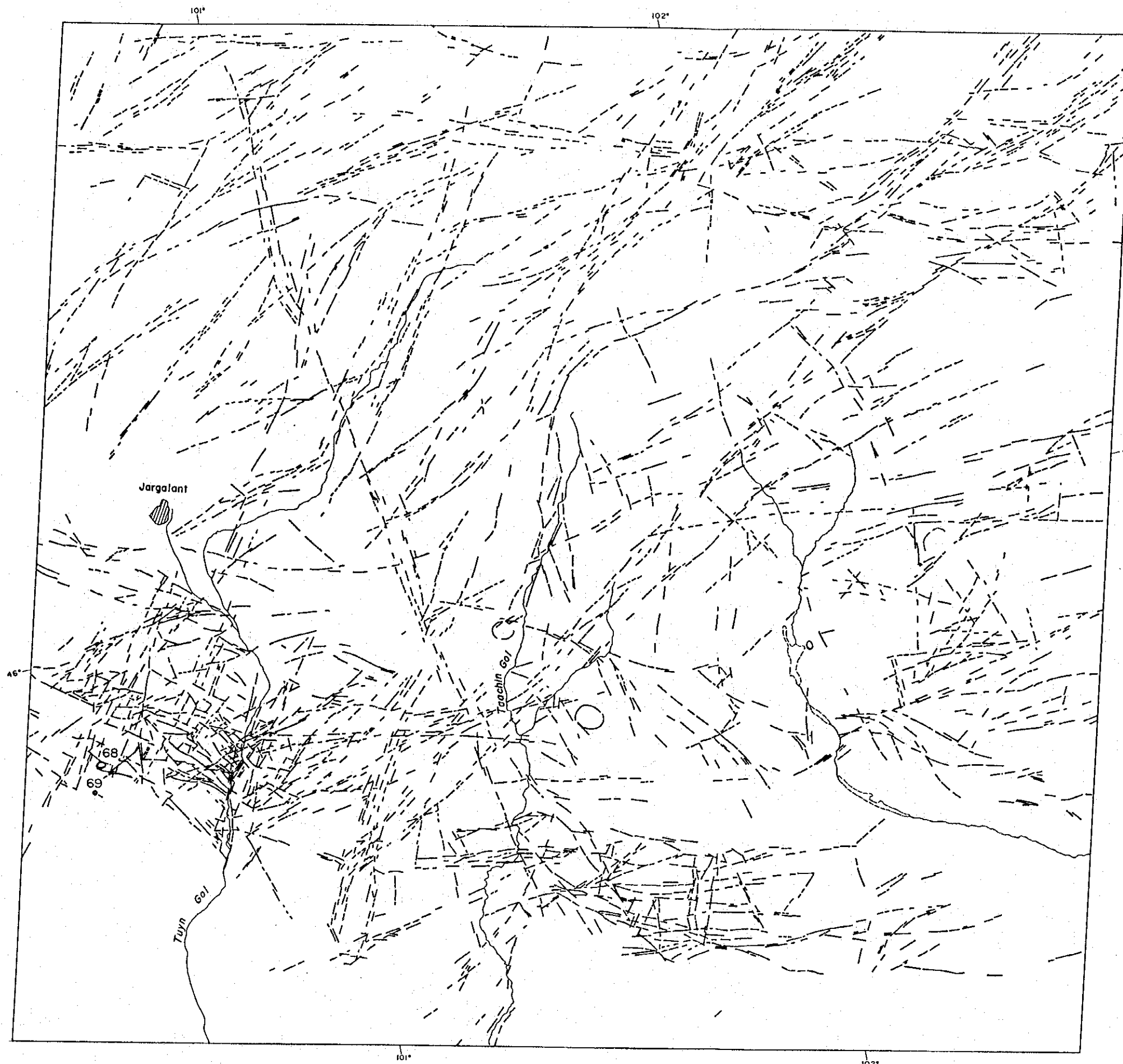





Fig. II-2-4(21) Distribution Map of Linear Structure (P134/R27)



Legend

-  Lineament
-  Circular structure
-  Altered area and number

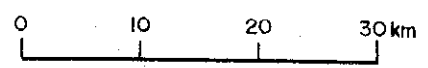
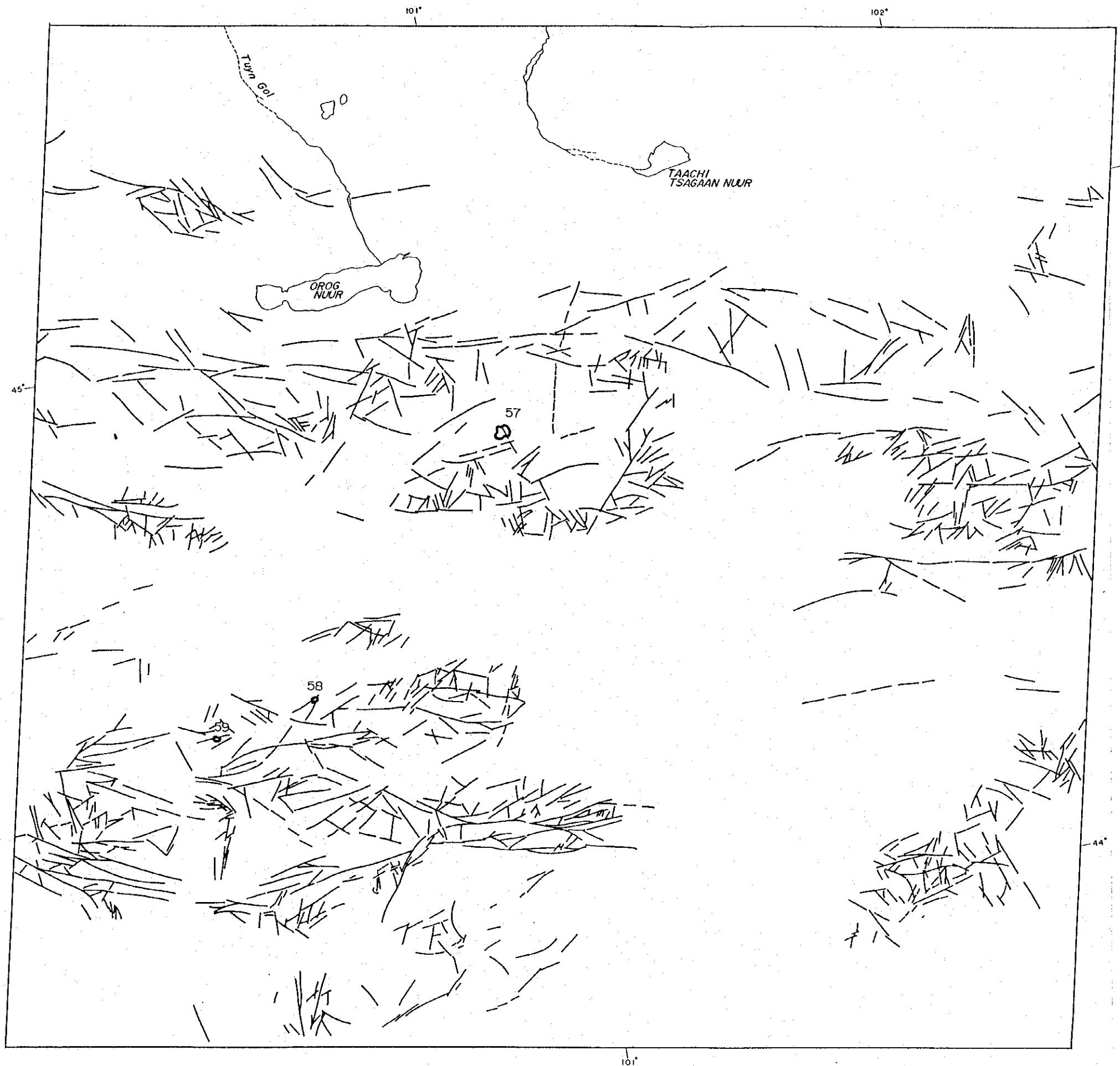





Fig. II-2-4(22) Distribution Map of Linear Structure (P134/R28)





Legend

-  Lineament
-  Circular structure
-  Altered area and number

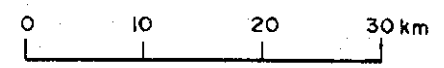
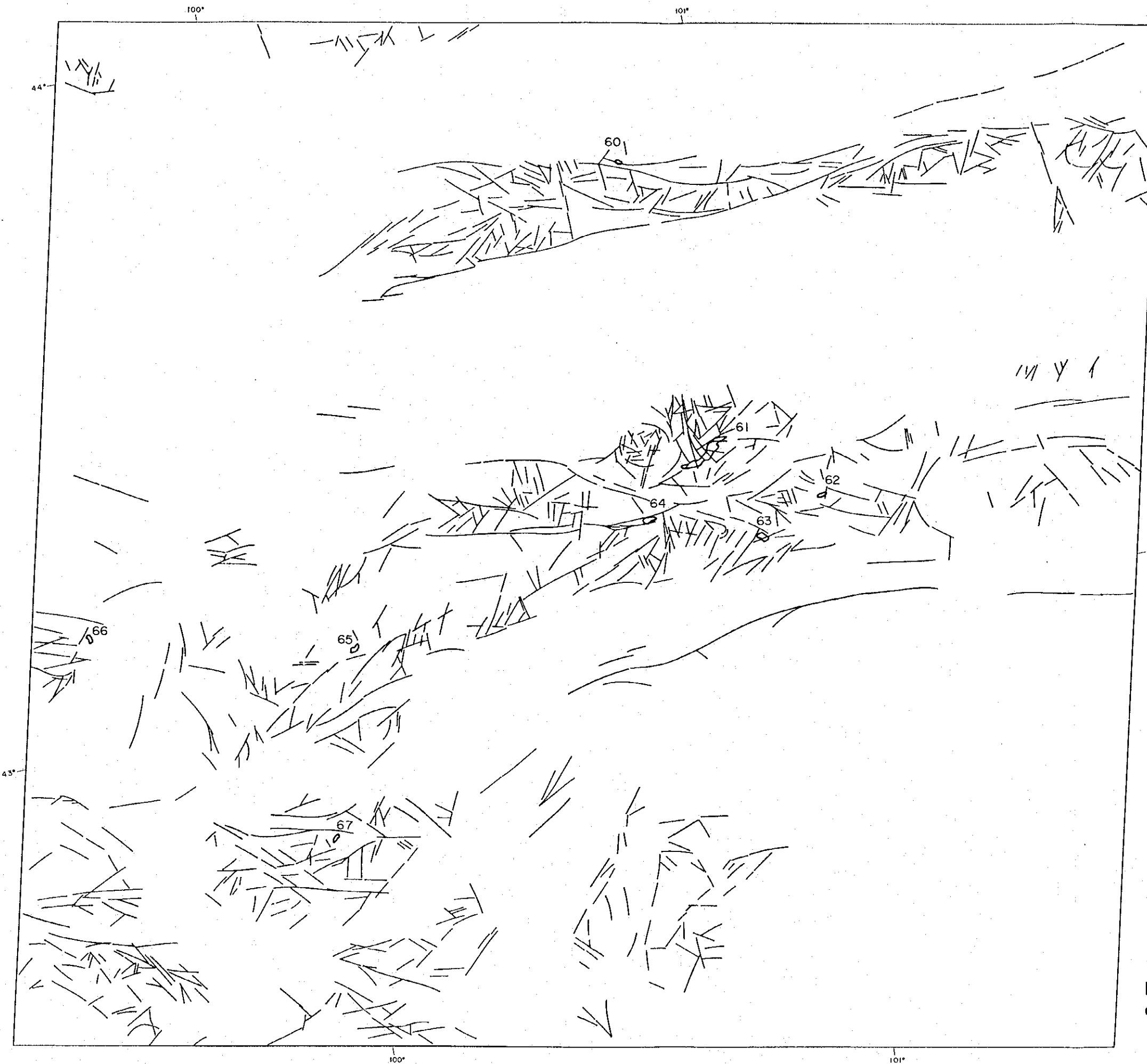


Fig. II-2-4(23) Distribution Map of Linear Structure (P134/R29)



Legend




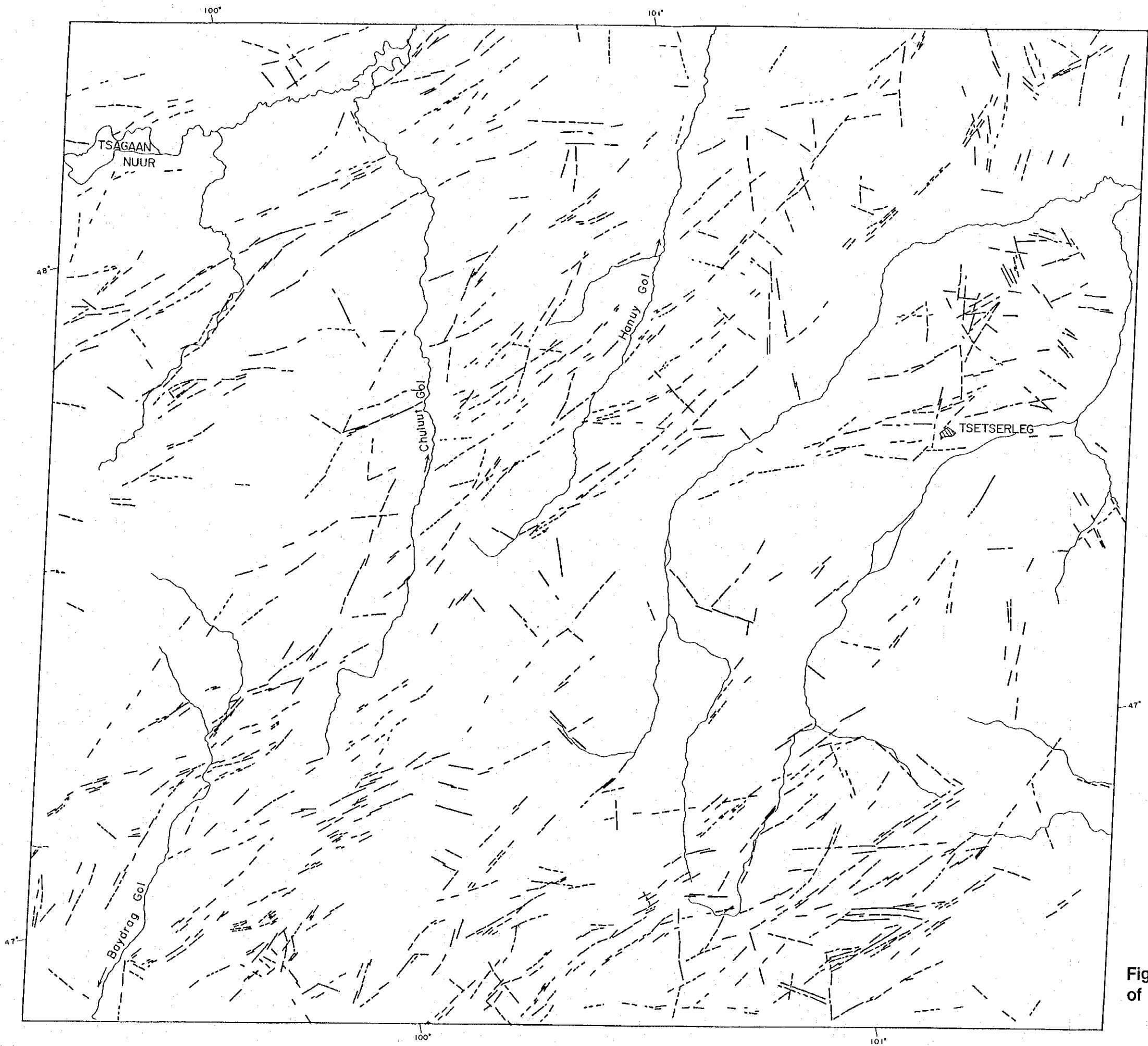



-  Lineament
-  Circular structure
-  Altered area and number



Fig. II-2-4(24) Distribution Map of Linear Structure (P134/R30)



Legend

-  Lineament
-  Circular structure
-  Altered area and number

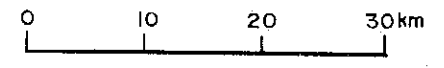
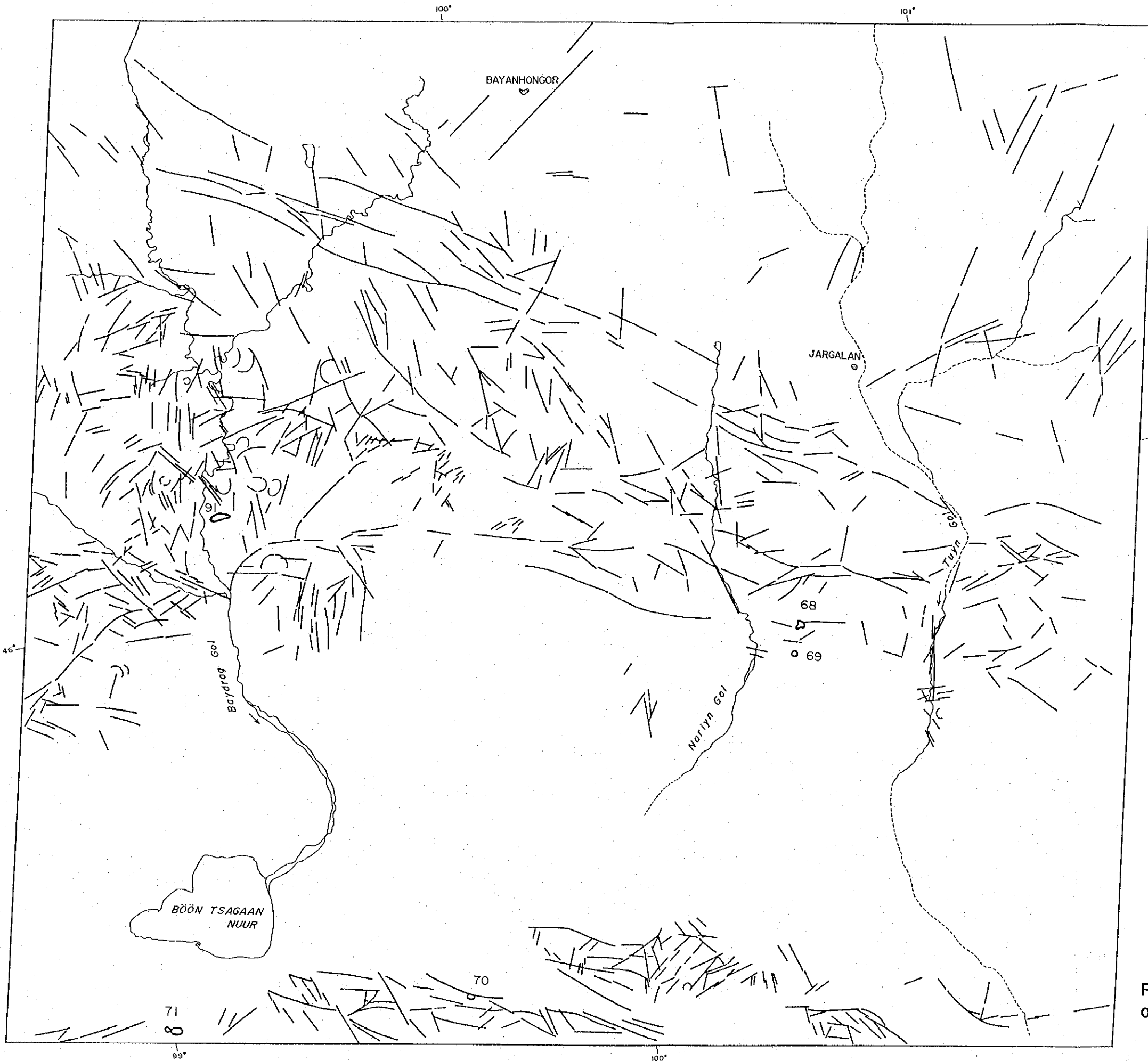


Fig. II-2-4(25) Distribution Map of Linear Structure (P135/R27)



Legend




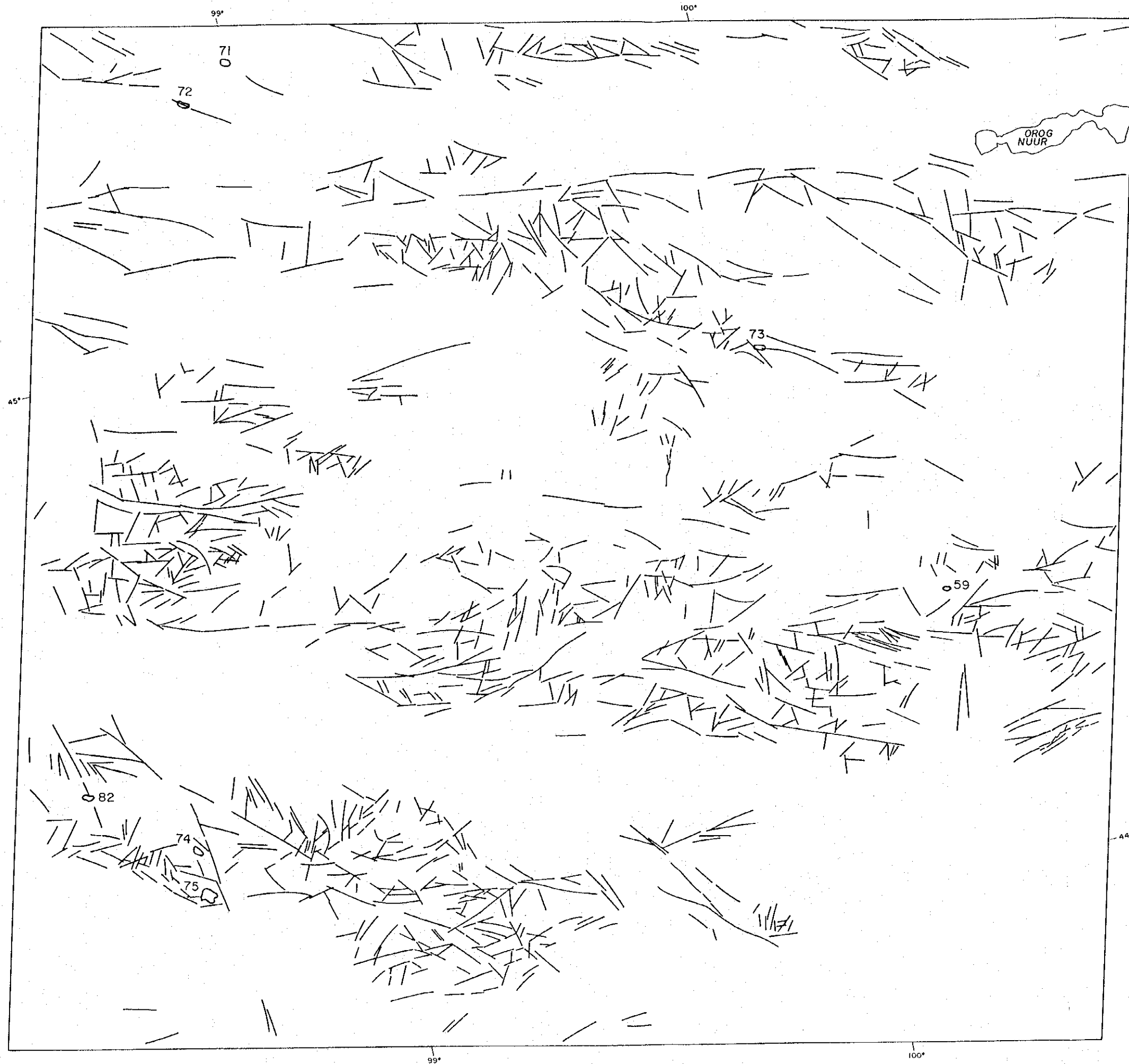



-  Lineament
-  Circular structure
-  Altered area and number



Fig. II-2-4(26) Distribution Map of Linear Structure (P135/R28)



Legend

-  Lineament
-  Circular structure
-  Altered area and number

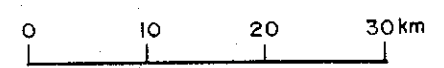
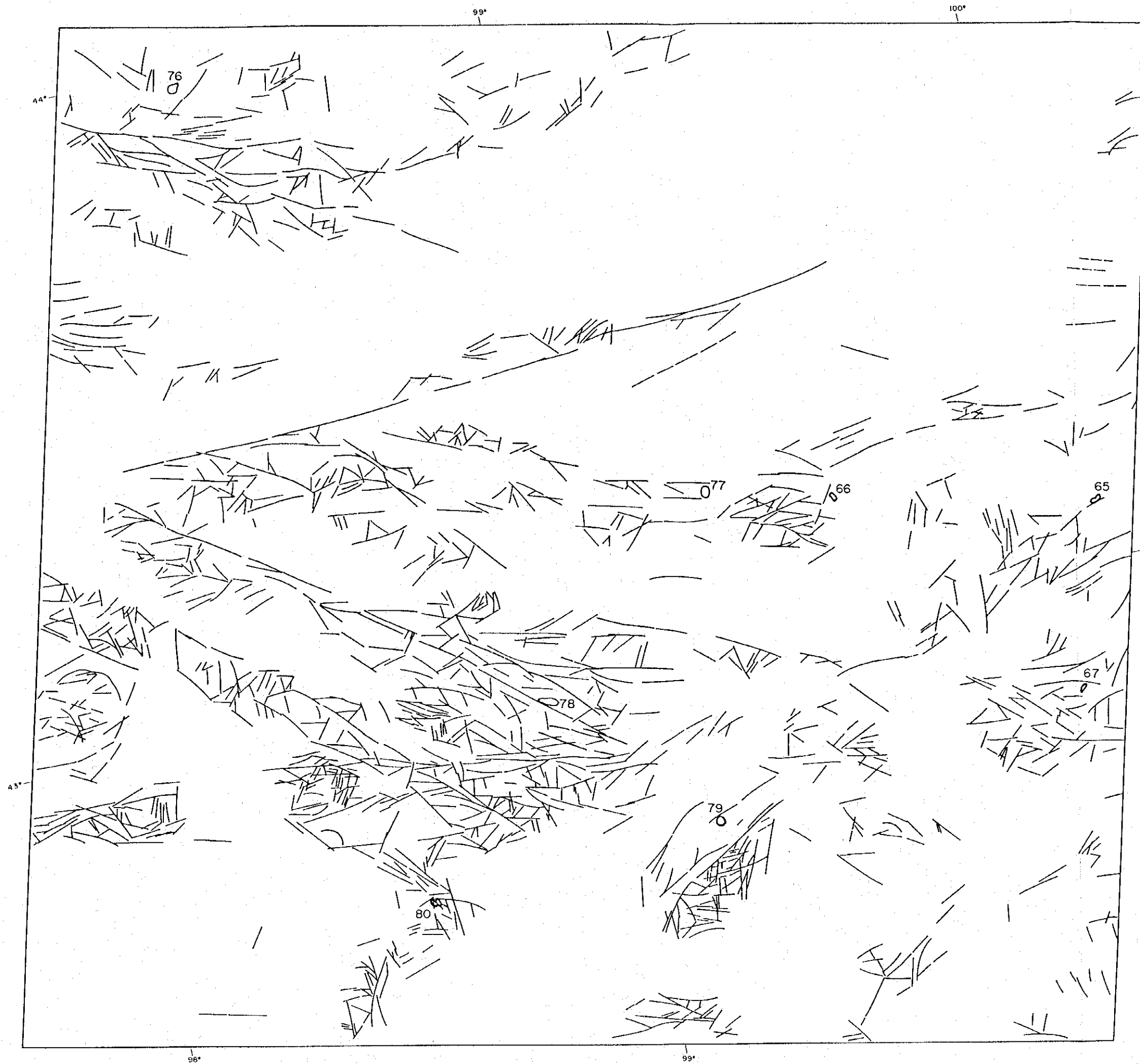





Fig. II-2-4(27) Distribution Map of Linear Structure (P135/R29)



Legend

-  Lineament
-  Circular structure
-  Altered area and number

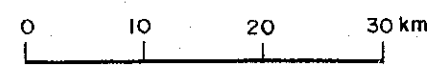
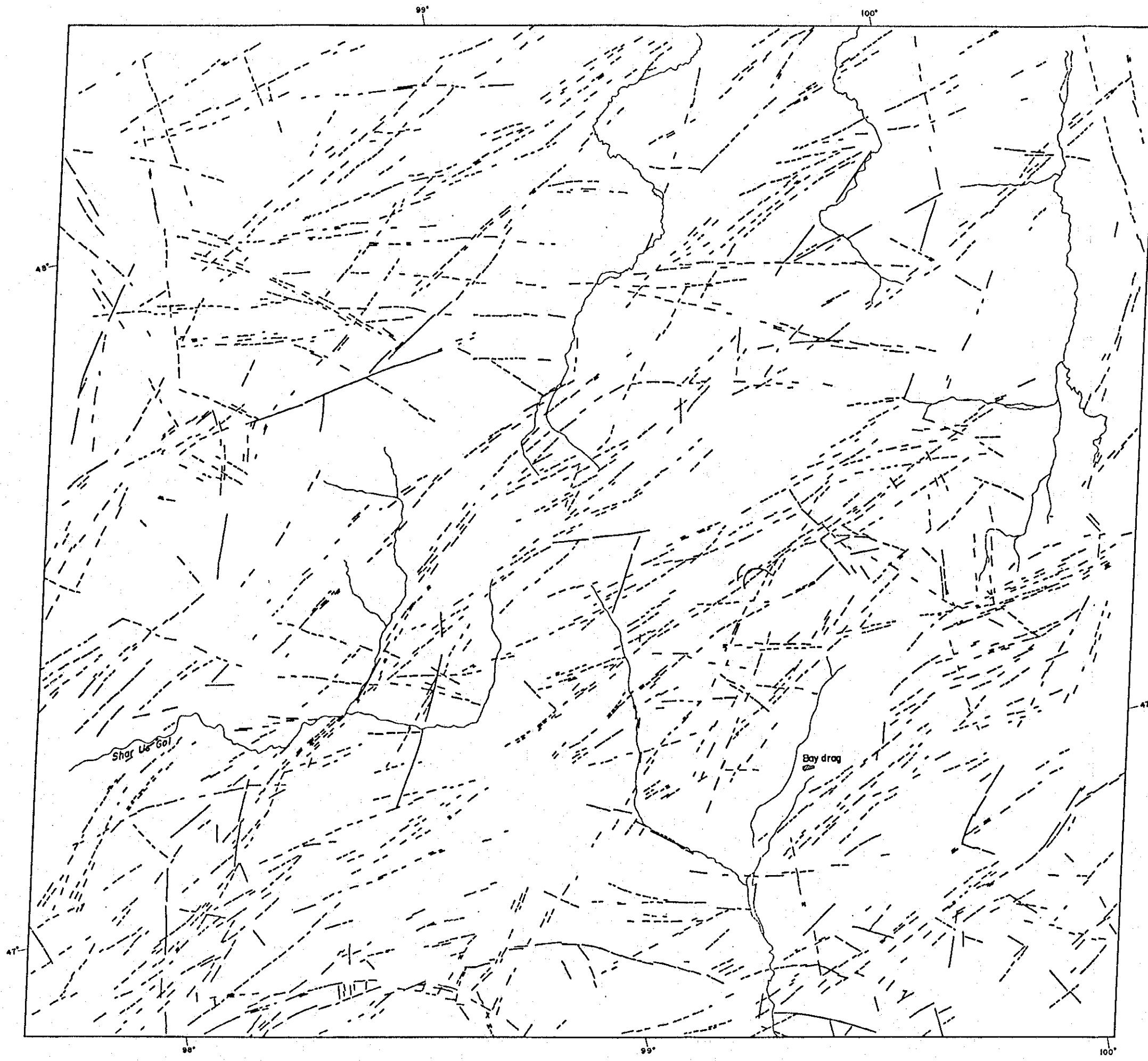





Fig. II-2-4(28) Distribution Map of Linear Structure (P135/R30)



Legend

-  Lineament
-  Circular structure
-  Altered area and number

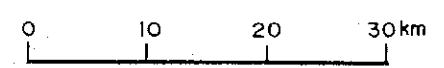


Fig. II-2-4(29) Distribution Map of Linear Structure (P136/R27)

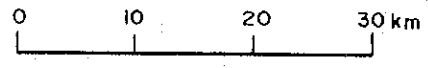
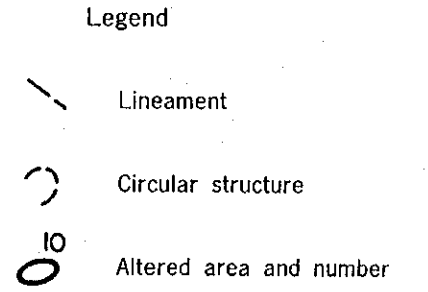
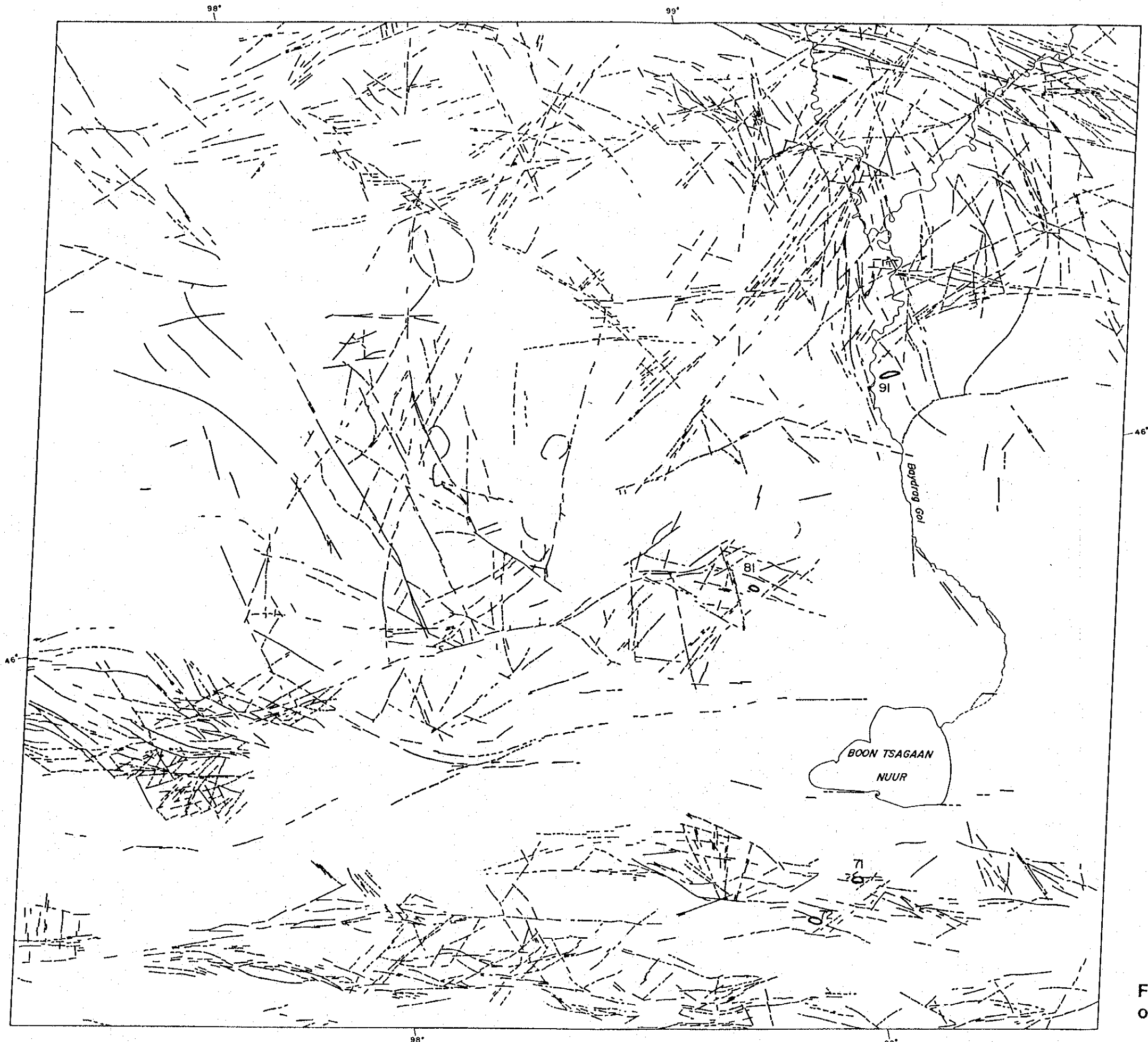
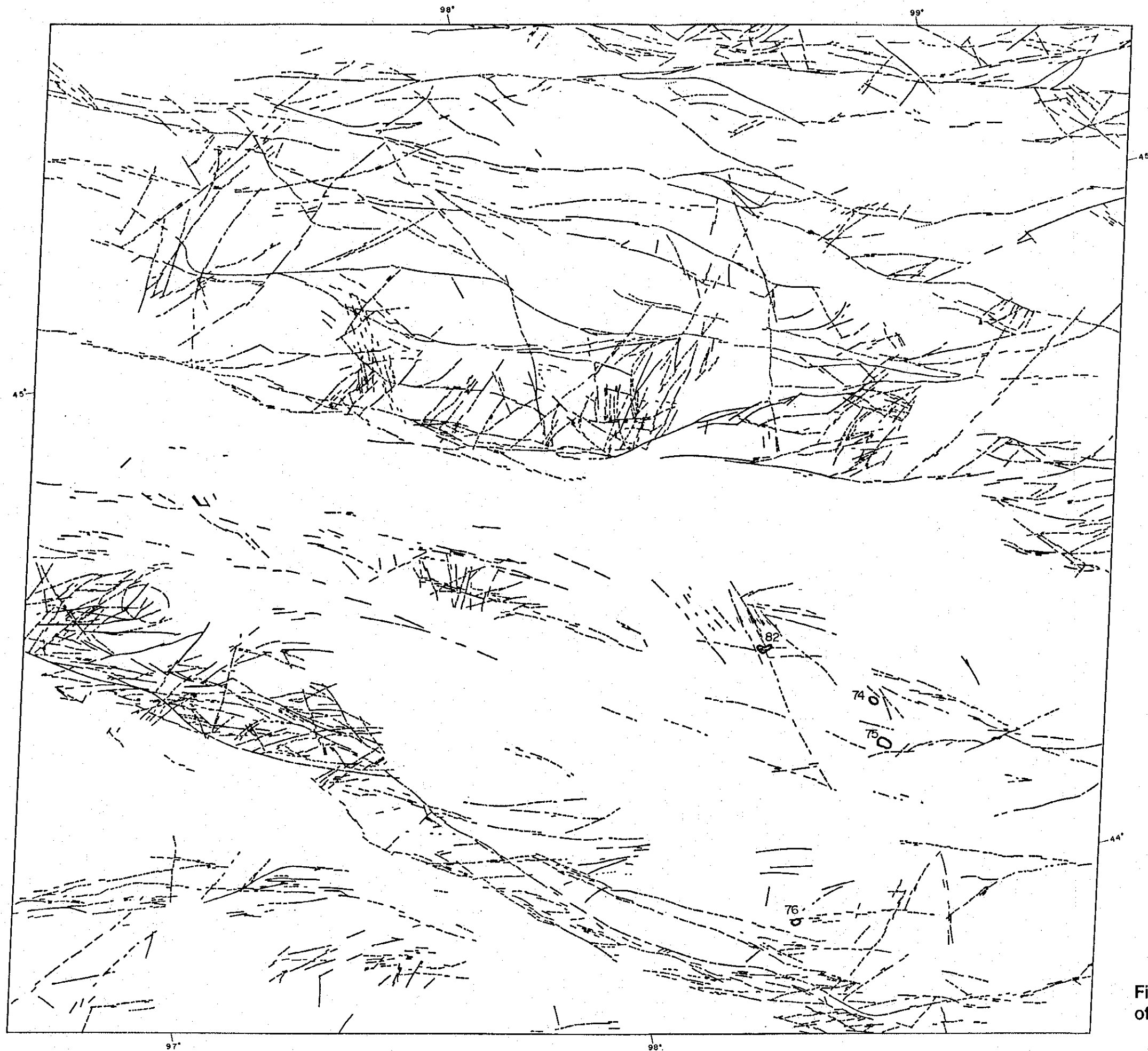





Fig. II-2-4(30) Distribution Map of Linear Structure (P136/R28)





Legend

-  Lineament
-  Circular structure
-  Altered area and number

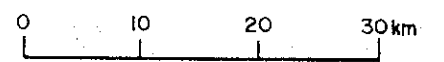
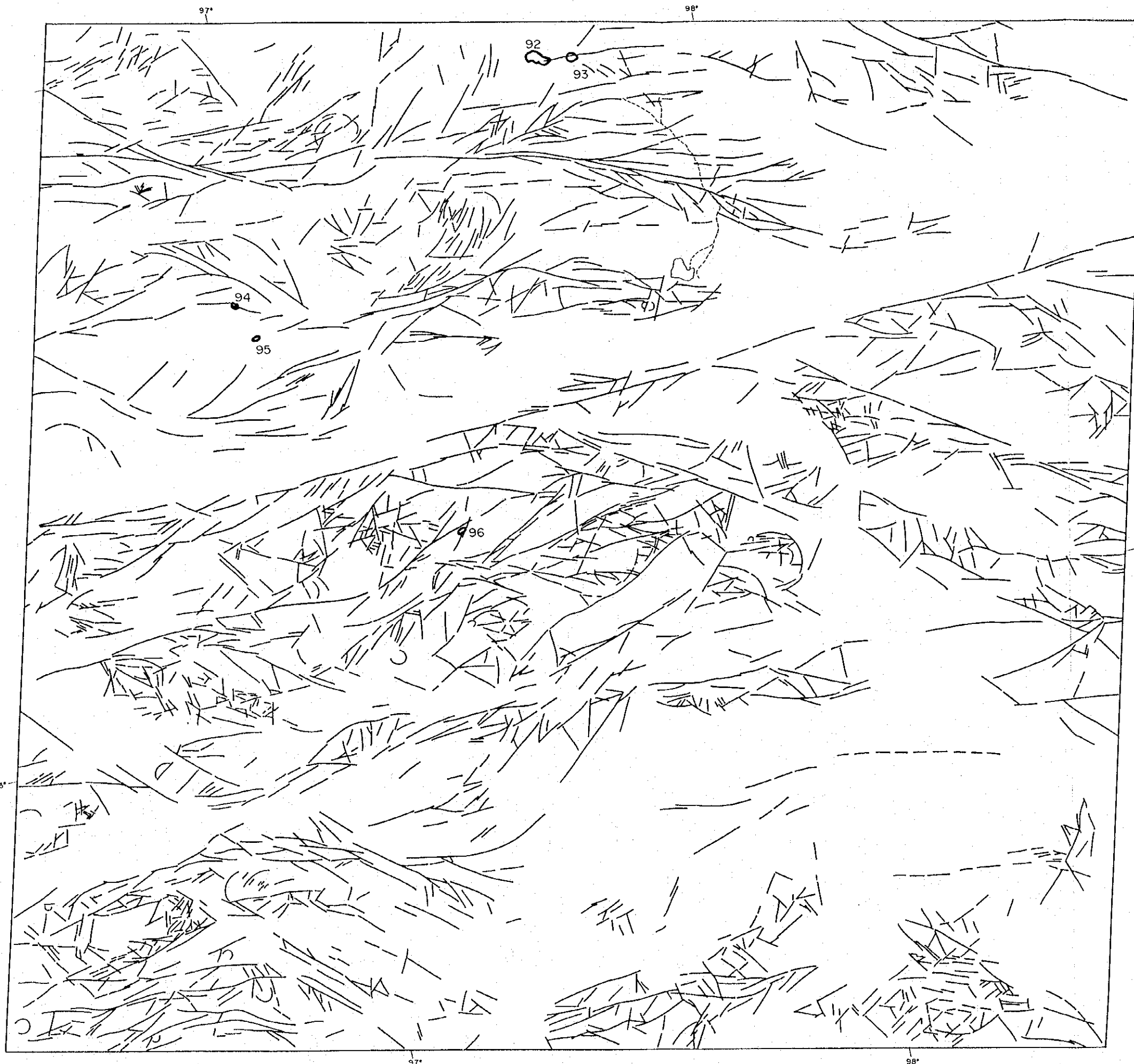





Fig. II-2-4(31) Distribution Map of Linear Structure (P136/R29)



Legend

-  Lineament
-  Circular structure
-  Altered area and number

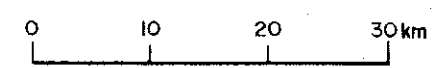
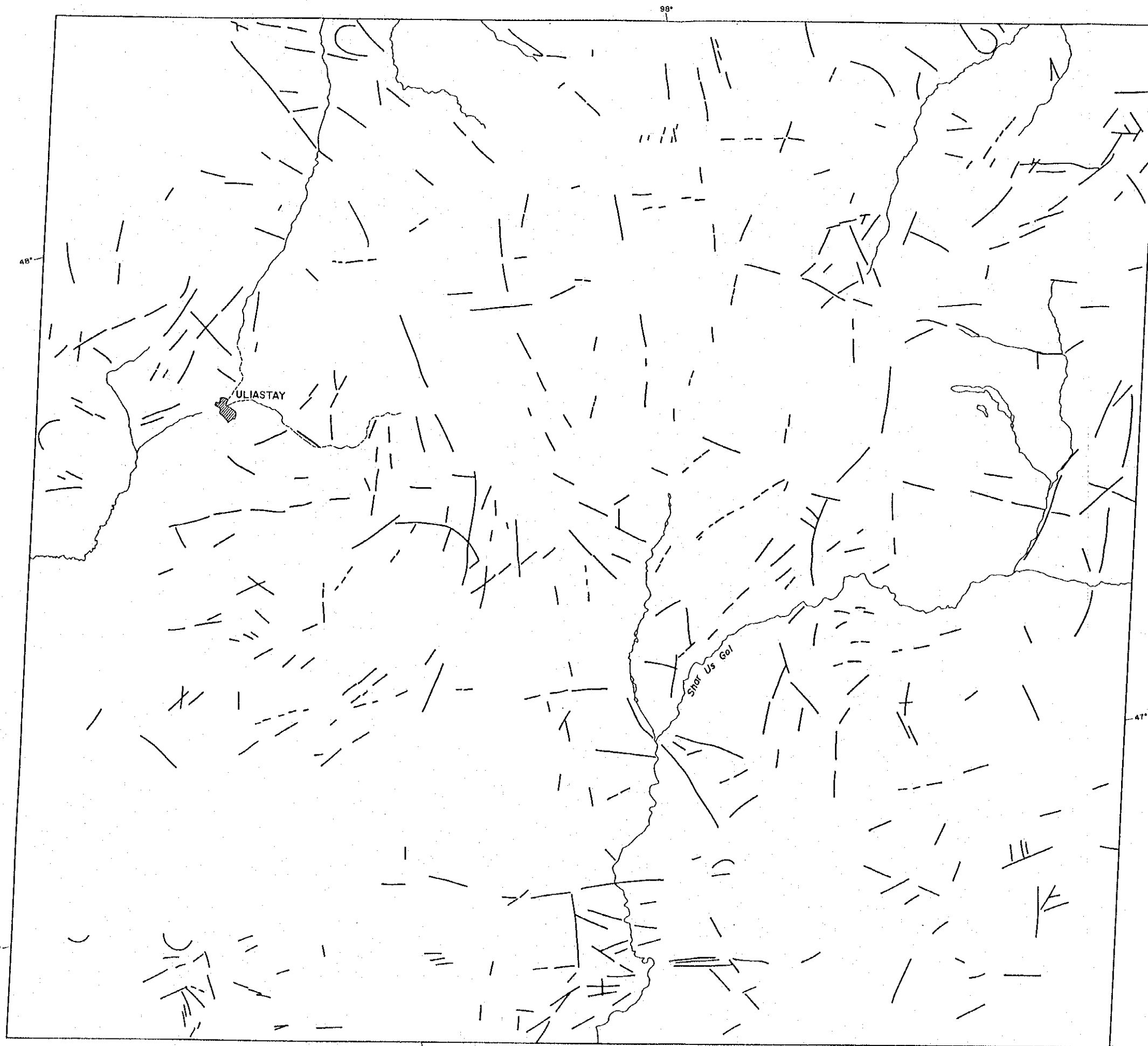





Fig. II-2-4(32) Distribution Map of Linear Structure(P136/R30)



Legend

-  Lineament
-  Circular structure
-  Altered area and number

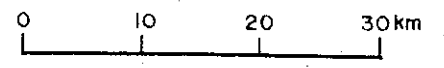


Fig. II-2-4(33) Distribution Map of Linear Structure (P137/R27)

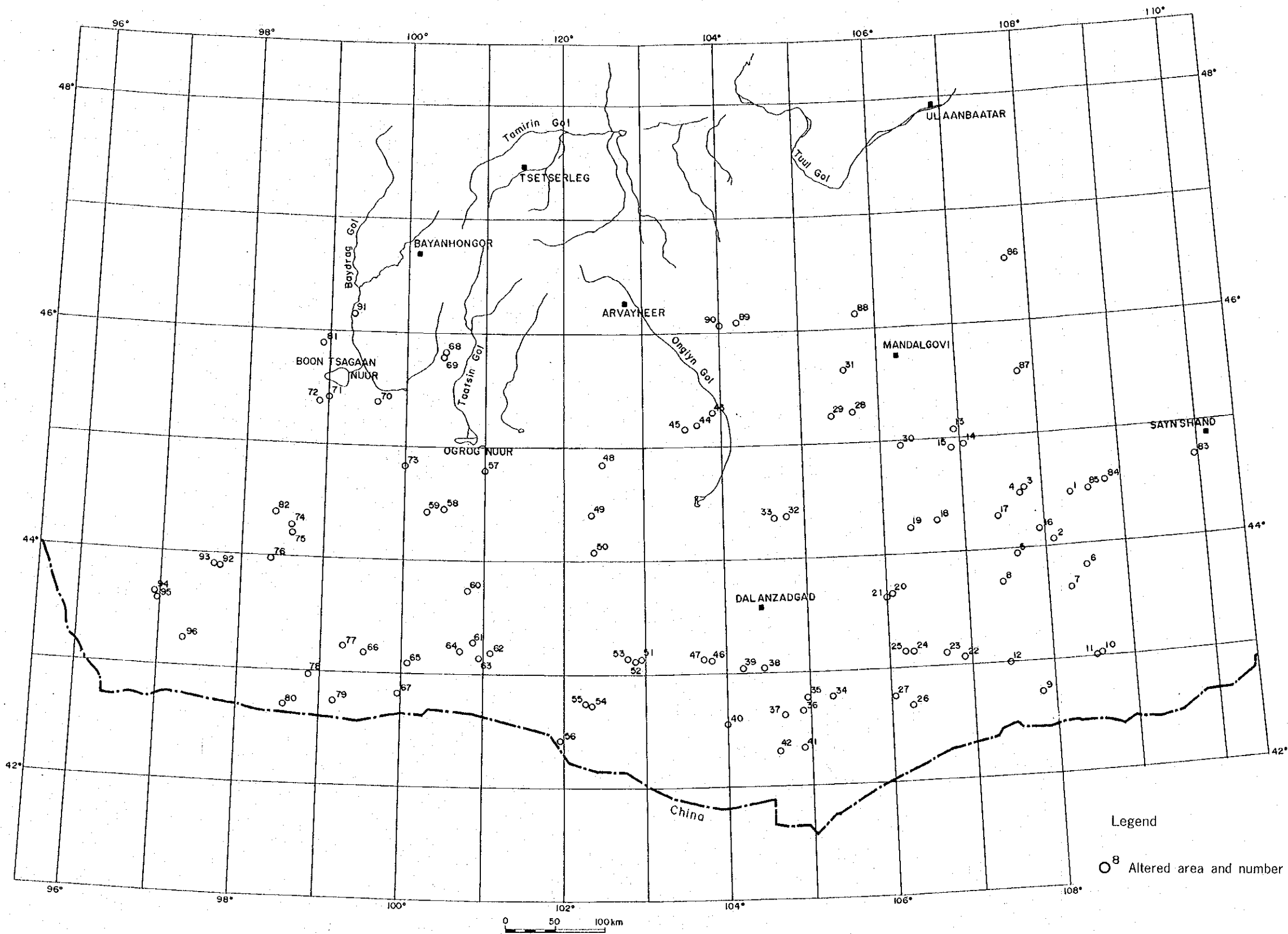


Fig. II-2-5 Location Map of Altered Areas by Satellite Image Analysis

Table II-2-2 List of Altered Areas Selected by Satellite Image (1)

NO	TM Image Path/Row	Coordinate		Size ( Km )	Color/Tone	Rank	Remarks
		Latitude(N)	Longitude(E)				
1	129/29	44° 28' 00"	108° 20' 00"	0.5×2.0	Light blue	A	Near contact of gr./vol.
2	129/29	44° 03' 00"	108° 07' 00"	0.2×0.2	Yellow green	C	Top of the hill
3	130/29	44° 32' 00"	107° 47' 00"	0.3×1.5	Yellow green	B	
4	130/29	44° 28' 00"	107° 43' 00"	0.7×2.0	Light yellow green	B	Ellipsoidal structure
5	129/30	43° 57' 00"	107° 38' 00"	2.0×8.0	Yellow-Yellow green	A	Shuten
6	129/30	43° 38' 00"	108° 30' 00"	0.3×1.0	Bluish green	C	
7	129/30	43° 38' 30"	108° 17' 00"	0.2×1.0	Bluish green	C	Circular volcanic landform
8	129/30	43° 02' 30"	107° 26' 00"	0.3×1.0	Light blue	C	Near contact of gr./vol.?
9	129/30	42° 43' 00"	107° 51' 00"	4.0×5.0	Yellow-Yellow brown	C	Vol?
10	129/30	43° 01' 20"	108° 36' 00"	0.3×1.2	Grey blue	D	Near E-W lineament
11	129/30	43° 01' 00"	108° 33' 00"	0.3×0.5	Grey	D	
12	129/30	42° 59' 00"	107° 28' 30"	0.6×3.0	Yellow>Bluish green	A	Fe - oxide?
13	130/29	45° 04' 00"	106° 56' 00"	0.4×1.0	Grey blue	D	
14	130/29	44° 57' 00"	107° 02' 00"	1.0×1.5	Pale gray	D	
15	130/29	44° 55' 00"	106° 54' 00"	0.2×1.0	Blue-Grey blue	D	
16	130/29	44° 07' 00"	107° 56' 00"	0.8×2.2	Blue-Grey blue	C	Vol?, vegetation?
17	130/29	44° 16' 00"	107° 25' 00"	0.7×1.0	Light grey	B	Silicification?
18	130/29	44° 17' 00"	106° 39' 30"	0.8×2.5	White-Blue	A	Top of the hill

Rank: In order of priority, A(high) to D(low)

Table II-2-2 List of Altered Areas Selected by Satellite Image (2)

NO	TM Image Path/Row	Coordinate		Size ( Km )	Color/Tone	Rank	Remarks
		Latitude(N)	Longitude(E)				
19	130/29	44° 13' 00"	106° 19' 00"	0.7×1.0	Bluish green	B	NE-Lineament
20	130/30	43° 39' 00"	106° 05' 00"	1.4×1.5	Blue>White	A	Ih-Shanhai
21	130/30	43° 37' 30"	105° 59' 30"	φ=1.2	White+Blue	A	West to the Ih-Shanhai
22	130/30	43° 04' 00"	106° 54' 30"	0.4×1.3	Light grey	C	Near the Hanbogt massif
23	130/30	43° 06' 00"	106° 46' 30"	0.7×2.2	Blue-Yellow green	A	Near contact of gr./vol.
24	130/30	43° 08' 00"	106° 17' 30"	φ=0.7	Blue	B	Argillization ?
25	130/30	43° 08' 30"	106° 11' 00"	φ=2.0	White+Blue	A	Volcanic landform
26	130/30	42° 39' 00"	106° 15' 30"	1.5×2.0	Light blue+White	A	Gr./Vol. contact
27	130/30	42° 45' 00"	106° 03' 00"	0.5×1.0	Light blue	C	Volcanics?
28	131/29	45° 15' 30"	105° 39' 00"	0.5×1.5	Greish blue, rough	B	Volcanic ring structure
29	131/29	45° 13' 00"	105° 23' 00"	0.7×1.2	Greish blue, rough	B	
30	131/29	44° 57' 00"	106° 16' 00"	2.5×4.0	Yellow-Blown, rough	B	Rich in Fe - oxide?
31	131/28	45° 38' 00"	105° 33' 00"	2.0×2.0	Light blue+White	B	
32	132/29	44° 22' 00"	104° 47' 30"	0.4×1.5	Grey, rough	B	Ls. or silicification
33	132/29	44° 21' 30"	104° 38' 30"	1.5×1.5	Yellow green, rough	D	
34	131/30	42° 46' 00"	105° 17' 00"	φ=1.0	Blue+White	A	On the NNW lineament
35	131/30	42° 46' 30"	104° 58' 00"	0.5×2.0	Light blue, rough	B	Sharp boundary
36	131/30	42° 39' 00"	104° 55' 00"	0.2×3.0	Light grey, rough	D	EW - trend

Rank: In order of priority, A(high) to D(low)

Table II-2-2 List of Altered Areas Selected by Satellite Image (3)

NO	T M Image Path/Row	Coordinate		Size ( Km )	Color/Tone	Rank	Remarks
		Latitude	Longitude				
37	131/30	42° 37' 30"	104° 42' 30"	1.0×1.5	Blue - Light blue	A	NW- fault, Argillization ?
38	131/30	43° 02' 30"	104° 28' 00"	1.5×2.0	Blue - Light blue	C	Rough tex.
39	132/30	43° 02' 30"	104° 12' 00"	1.0×1.5	Light grey	C	
40	132/30	42° 33' 00"	104° 00' 20"	0.8×0.8	Light blue, rough	C	
41	131/31	42° 19' 30"	104° 54' 30"	1.5×1.5	Grey blue, rough	C	NW-WNW fault
42	131/31	42° 19' 00"	104° 38' 00"	1.0×1.0	Yellow brown	C	Fe - oxide?
43	132/29	45° 18' 00"	103° 42' 00"	0.5×3.0	White-Blue	B	ENE - trend
44	132/29	45° 10' 30"	103° 10' 30"	0.3×1.7	Blue>White	B	ENE - trend
45	132/29	45° 10' 00"	103° 33' 00"	φ=0.7	White, Blue	B	Volcanic landform
46	132/30	43° 06' 20"	103° 46' 30"	0.5×2.0	Grey-Light blue	C	NNE and WNW fault, rough
47	132/30	43° 06' 30"	103° 42' 00"	0.5×2.0	Grey-Light blue	C	NW lineament
48	133/29	44° 50' 30"	102° 29' 00"	φ=0.4	White, Light blue	B	Volcanic center
49	133/29	44° 24' 30"	102° 21' 30"	φ=0.5	White, Light blue	D	Semirough
50	133/29	44° 04' 40"	102° 22' 30"	0.3×1.2	Pale green, semirough	C	NE, EW fault
51	133/30	43° 08' 00"	102° 55' 30"	1.0×2.0	Blue>>White, rough	B	ENE fault
52	133/30	43° 07' 30"	102° 53' 00"	0.5×2.0	Blue>>White, rough	B	ENE fault
53	133/30	43° 08' 00"	102° 47' 00"	1.0×7.5	Blue>>White, rough	B	WNW trend, with vein?
54	133/30	42° 44' 00"	102° 19' 00"	0.5×0.7	Blue, White	B	

Rank: In order of priority, A(high) to D(low)

Table II-2-2 List of Altered Areas Selected by Satellite Image (4)

NO	T M Image Path/Row	Coordinate		Size ( Km )	Color/Tone	Rank	Remarks
		Latitude	Longitude				
55	133/30	42° 44' 30"	102° 17' 00"	0.3 × 2.0	Yellowgreen	A	WNW trend 4 small peaks?
56	133/31	42° 25' 00"	101° 57' 00"	0.7 × 2.5	Light blue, rough	C	Near granitic mass
57	134/29	44° 47' 40"	101° 00' 00"	1.7 × 1.7	Greenish blue	C	
58	134/29	44° 27' 00"	101° 00' 00"	0.3 × 0.7	Greenish blue	C	Metamorphic rock?
59	134/29	44° 25' 40"	100° 17' 00"	0.3 × 0.7	Greenish blue	C	Metamorphic rock?
60	134/30	43° 44' 40"	100° 48' 00"	0.2 × 1.0	Light blue	B	Fault zone
61	134/30	43° 17' 00"	100° 52' 30"	1.0 × 9.0	Light blue, Yellow	A	Fault zone
62	134/30	43° 16' 00"	101° 05' 00"	0.2 × 1.5	Blue, Light blue	B	Geology?
63	134/30	43° 08' 00"	100° 56' 40"	1.0 × 2.0	Blue	B	
64	134/30	43° 11' 40"	100° 43' 00"	φ = 0.8	Blue, White	B	
65	134/30	43° 05' 20"	100° 04' 20"	0.3 × 1.5	Light blue, White	A	Sedimentary rock?
66	134/30	43° 10' 30"	99° 32' 00"	0.3 × 1.3	Blue	B	
67	134/30	42° 49' 00"	99° 58' 00"	0.2 × 1.2	Light blue	A	Near granitic mass
68	135/28	45° 49' 40"	100° 29' 00"	1.0 × 1.0	Blue, Light gray	A	
69	135/28	45° 47' 20"	100° 27' 30"	φ = 0.5	Yellow green	B	
70	135/28	45° 23' 20"	99° 38' 00"	0.2 × 0.8	Blue, White	B	Near WNW, ENE fault
71	135/28	45° 25' 30"	99° 00' 00"	0.7 × 2.0	Blue, White	A	Contact zone of gr./vol.
72	135/29	45° 23' 00"	98° 53' 30"	0.3 × 1.5	Blue, White	C	Intrusive rock?

Rank: In order of priority, A(high) to D(low)



Table II-2-2 List of Altered Areas Selected by Satellite Image (5)

NO	T M Image Path/Row	Coordinate		Size ( Km )	Color/Tone	Rank	Remarks
		Latitude	Longitude				
73	135/29	45° 50' 00"	100° 00' 00"	0.5×1.8	Light blue, rough	C	Sedimentary rock?
74	135/29	45° 16' 30"	98° 36' 00"	0.7×1.5	Light blue, Yellow	B	
75	135/29	44° 12' 30"	98° 36' 30"	1.4×2.0	Blue>Yellow	A	No. 61 type
76	135/30	43° 58' 30"	98° 21' 00"	0.5×1.4	Light blue, White	C	Rough, intrusive?
77	135/30	43° 13' 30"	99° 16' 30"	1.1×2.0	White, Blue	C	Rough
78	135/30	42° 57' 00"	98° 52' 00"	0.7×3.5	Blue	B	WNW fault zone
79	134/30	42° 44' 20"	99° 10' 20"	0.9×1.5	Blue, Yellow green	B	
80	135/30	42° 42' 00"	98° 33' 00"	0.3×2.0	Light blue, White	A	Volcanics?
81	136/28	45° 53' 30"	98° 54' 40"	0.5×1.5	Light blue, rough	D	
82	136/29	44° 23' 30"	98° 24' 00"	0.5×2.5	Light blue, rough	C	
83	129/29	44° 42' 00"	109° 57' 30"	1.5×2.0	Blue>White	C	Sedimentary rock?
84	129/29	44° 32' 40"	108° 48' 00"	0.3×0.6	Blue>White	B	Volcanics
85	129/29	44° 29' 00"	108° 34' 30"	0.4×1.3	Blue>White	B	Volcanics
86	130/28	44° 33' 00"	107° 43' 30"	φ=1.0	Green>Light blue	B	Volcanic center
87	130/28	46° 33' 00"	107° 47' 30"	0.4×0.8	Yellow green	C	
88	131/28	46° 08' 30"	105° 45' 00"	0.8×1.5	Greenish blue	B	Fault zone
89	132/28	46° 06' 00"	104° 13' 30"	0.5×1.0	Light blue	B	
90	132/28	46° 04' 00"	104° 01' 00"	0.3×2.0	Light blue	A	N-S trend

Rank: In order of priority, A(high) to D(low)

Table II-2-2 List of Altered Areas Selected by Satellite Image (6)

NO	T M Image Path/Row	Coordinate		Size ( Km )	Color/Tone	Rank	Remarks
		Latitude	Longitude				
91	135/28	46° 09' 00"	99° 18' 00"	0.5 × 2.5	Blue	A	Geological contact
92	136/30	43° 53' 30"	97° 44' 00"	1.4 × 4.0	Blue>White	B	Volcanics
93	136/30	43° 54' 00"	97° 40' 00"	1.0 × 1.5	Blue>>White	B	Volcanics
94	136/30	43° 38' 30"	98° 56' 00"	0.4 × 1.0	Light blue	A	WNW lineament
95	136/30	43° 35' 00"	96° 58' 00"	0.3 × 1.0	Yellow brown	C	Volcanics
96	136/30	43° 14' 30"	97° 18' 30"	0.3 × 1.3	Blue	B	Granite,ENE fault zone

Rank: In order of priority, A(high) to D(low)

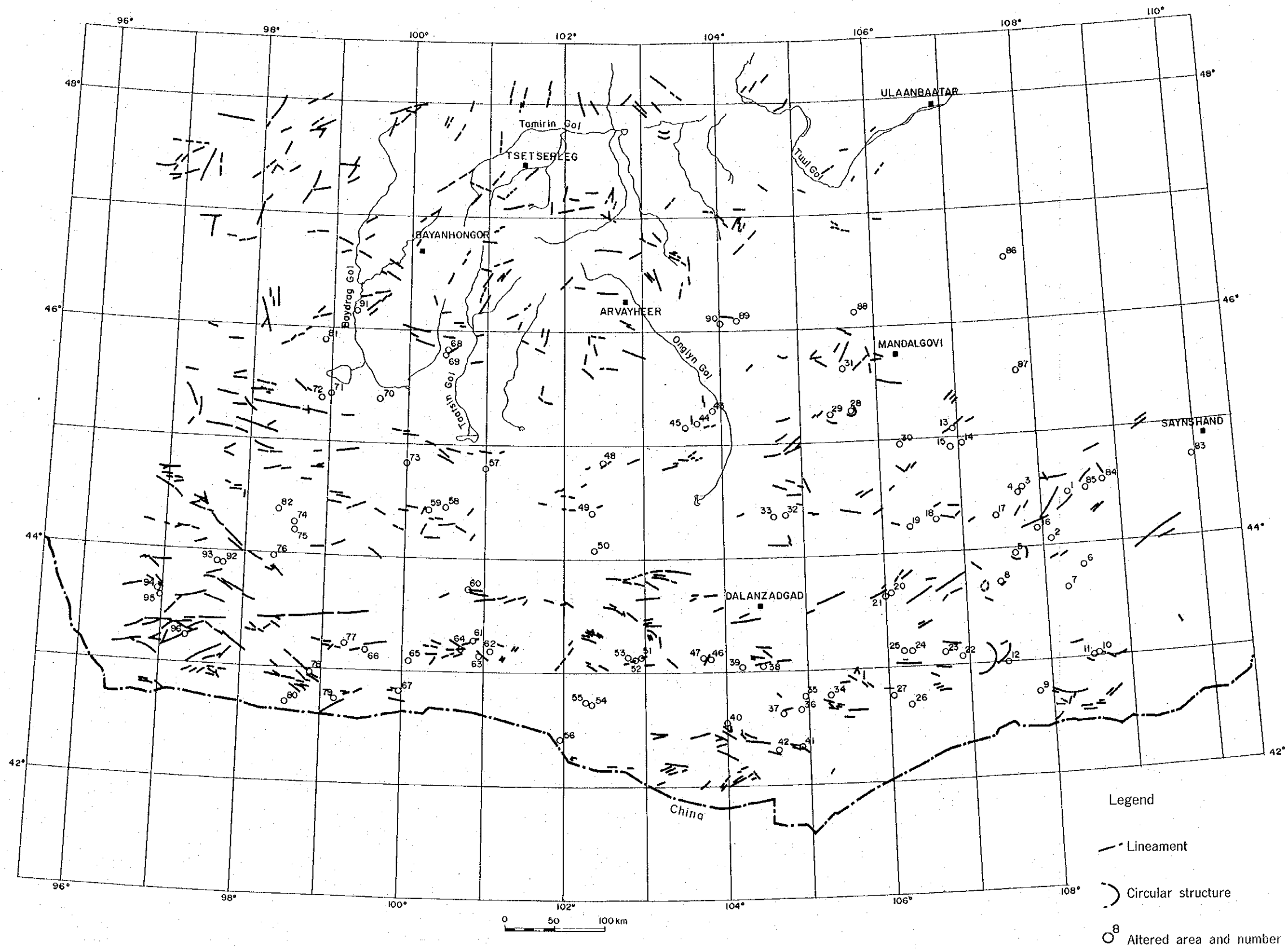


Fig. II-2-6 Summary of Satellite Image Analysis

系の左横ズレ成分を示す断層が長さ10kmにわたって認められる。カーブ状～環状構造は、シュテン、シュテン南東、ハンボグト、ルース南南東などで特に明瞭に認められる。なお位置関係については後述のⅡ-2-6図を参照されたい。

### 2-2-2 変質帯の抽出

鉍化変質帯の判読は、リニアメントの判読と同様に、縮尺1/20万の画像毎、肉眼により色調の異常部を抽出することにより実施した。浅熱水性鉍床は多くの場合粘土化変質帯を周辺部に伴う。粘土鉍物の吸収スペクトルはTMバンド7の波長域で著しく、バンド4に青、バンド5に緑、バンド7に赤を配色した無相関ストレッチ画像上では、粘土化変質帯はシアンブルー系の色調を示すことが期待される。また同様に酸化鉄鉍物を多く含む部分は黄色系の色調となり、珪化帯は白色となる。以上の色調と、既知鉍徴地であるイヒシャンハイ（青色>白）、シュテン（黄色）を参考として鉍化変質帯を抽出した。

鉍化変質帯抽出図をⅡ-2-5図に、抽出した鉍化変質帯の一覧表をⅡ-2-2表に示す。

変質帯を示すと考えられる色調の異常地域は全地域で96個所であり、本年度グラントルース地域内では47地点である。その内イヒシャンハイ（No.20）と類似の色調を示し、規模の比較的大きいものは、Nos. 1, 18, 21, 24, 25, 26, 31, 34, 37, 43, 44などであり、粘土化帯と珪化帯の存在が期待される地域である。また、シュテンと同様の色調を示すものはNos. 12, 23, 30などであり、イヒシャンハイ・タイプに比べ数が少ない。

### 2-2-3 画像解析結果

解析結果図をⅡ-2-6図に示す。図には画像から抽出したリニアメントの内主要なものと同様に鉍化変質帯、既知の鉍徴地を示した。

鉍化変質帯は無秩序に分布しているようにみえるが、前項で述べた規模の大きい鉍化変質帯を示すと考えられるものは北部のマングルゴビからサイハンオボーの一带、中央東部のシュテンからイヒシャンハイの帯、南部のハンボグト村からノムゴン村にかけての帯に集中する傾向がみられ、いずれもENE-EW系に近いトレンドを示す。

リニアメントと変質帯との明瞭な関係は認められないが、Nos. 43, 44付近ではN-S系のリニアメントが目立ち、シュテン、イヒシャンハイではENE系が、Nos. 23, 24, 25付近ではE-W系が卓越する傾向がある。

斑岩銅鉍床タイプの既知鉍徴地であるセルベンスハイト（Serven-Suhait）、ハルマグタイ（Harmagtai）、ナリンフダック（Narim Hudak）などは画像から判別することは困難であり、粘土化・珪化変質等の発達が弱いためと推定される。また、オロンオボート（Olou-Ovoot）などの鉍脈型鉍床では変質帯の幅が狭いせいか抽出することは困難である。