

PORTUGAL

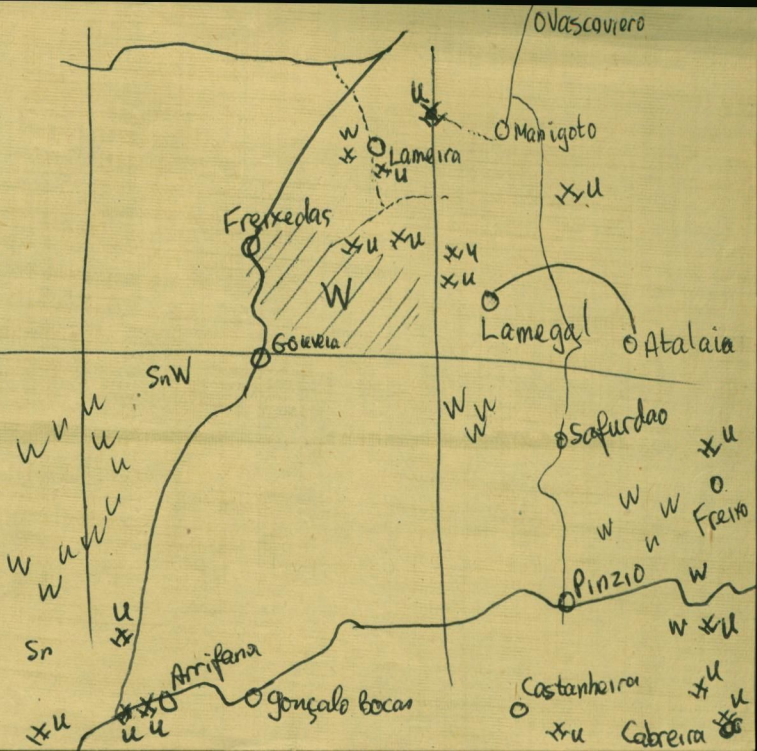
~~DOVE HOLES~~
WORMHILL

18A.

Notes

Sn
Sn

xu



AGUIAR-DA-BEIRA (SOUTO DE),

Portugal

14-D



MA 10 115. Torbernite & autunite in
small amounts, with cassiterite,
wolframite, etc. in pegmatites
bordering dolerite dykes in granite

ALTER PEDROSO, Portugal.

MA 7 132. Zircon - brown bipyramids
in soda-syenite-pegmatite

AMARANTE, Douro Litoral, Portugal

See also LIXA

Cornelius Maier

Eosphorite-childrenite common in the pegs
as comparatively large xls. or xl. aggregrs (2mm)
cf. Trasquilou nr. Caceres, Spain

R. Taylor, 6/73 E of Amarante, some large
peles of magnetite & a little of some
other mineral - tremolite (?)

BAIXO ALENTEJO

Portugal

MA 14 112 Mn ores, hydrothermal.

Pyrolusite, psilomelane, rhodonite,
rhodochrosite.

BARROSO, Gouveia area, Portugal.

Port GS Memoirs, Map 17D (Gouveia).

Sec'y U minerals espec. autunite
e sabugalite, abundant

BEJANCA mine, Viseu Portugal
See also BODIOSA 17-A •

MA 15 357. Metatorbernite

Soen, Geol of Viseu (1958) Appreciable amts. of (transp)
torbernite in veins of Bejanca M. Minor at other
locs in the area (Santa Cruz, Morangueiro, Santa Andree,
also Manninho, a few hundred metres S of Morangueiro)
good loc for torb, including boxworks of xls, etc. goes
down to deepest current level (40m), but "normal"
supergenes eg scorodite, pharmacos. only in highest l's.
Torb exposed @ surface goes opaque dull green on
dehydr. to meta-T. One or two summer days only needed!
Chalcosid - thin dark green fine grained crusts on vein
outcrops @ Bejanca & Santa Cruz M's. Scorod abundant
in the area - blue green xls up to 0.5cm. Pharmacos
less common. Only @ S. Cruz, Vale Gourdó, & Masgatos M's.

BENDADA, Sabugal, Guarda, Portugal
See also SABUGAL etc.; CORTES CIMEIRA 21-A

MA 15 371 Abundant granite pegs & aplites
in the Bendada area, with: pyrite; molybdenite;
chalcopyrite; arsenopyrite; cassiterite;
columbo-tantalite; pyrrhotite; tinplite;
scorodite; wavellite; metatorbernite;
tourmaline; beryl; lithiophyllite;
rockbridgite; harcourtite; phosphosiderite.
The SEIXEIRA peg. has stewartite; strunzite.

BODIOSA, Vizeu, Portugal
See also URGEIRICA; TOJAL; BEIANCA • 17-A

MA 3 138 Numerous small qtz veins with
sporadic wolframite, in muscovite-granite
around Bodiosa, 12 km NW of Vizeu.
From Cabrão in Bodiosa district ~~the~~ some
of the wolframite is translucent! (approaching
hübnerite in compos'n).

BORRALHA

(N). Portugal

MA 3 151.

Wolframite

BRAGANÇA,

Portugal

MA 10 486 Minute grains platinum
enclosed in chromite & magnetite,
rarely in olivine, in peridotites
of Bragança region. 2-12 g/ton.

CABANAS, Ponte do Lima, Minho, Portugal
See also CABRAÇÃO

MA 12 572 Stanniferous gadolite ("limaitite")
small xls → 2-7mm in pegmatite, with
cassiterite

CABRAÇÃO, Ponte do Lima, Minho, Portugal.
See also CABANAS
NW corner.

MA 12 572. Regmatites in mica-schist
adjacent to granite. 32 mineral species
incl. tabular xls tantalite-columbite;
cassiterite; new Sn-var of gahnite
("limaité"). Map, 3 cm $\equiv$ 1 km.
cf cabanas

R. Tayler 6/73 Nice pink andalusite xls
with quartz

CAMPEÃ, Serra du Marão, Portugal

MA 15 518. Cassit-wolframite-magnetite
alluvials with, rarely, ψ -morphs of
ferberite after scheelite

CASTELEJO, Gouveia area, Portugal.

Port. G & Memoirs, Map 17D (Gouveia).

Sec'y II mins. abundant, espec.
autunite & sabugalite (some of
the best sabugalite in the
area)

CERRO DO ALGARE

Portugal

Chem Abs. 68 71176

Deposit with

pyrite, arsenopyrite, löllingite,
chalcopyrite, enargite, stannite,
galena, & "their oxidation products"

CERVA

Portugal

MA 10 161 . Wolframite xls.

CORTES CIMEIRA, Bendada, Portugal.

See also BENDADA

17-A

MA 15 357 Sabugalite, assoc. with
phosphuranylite

COVAS, Serra d'Arga, Portugal

MA 15 518. Wveins with ψ morphs of ferberite
after scheelite; scheelite; wolframite

FAIL

Portugal

MA 15 357

Autunite

twinned on (110)

FERREIROS MINE, Rio de Mel, Trancoso, Portugal



14-D

MA 17 72. Autunite; torbernite; x-uranophane
(IR, X-ray, DTA).

FARRAGUDO

Portugal

MA 15 353 Todorokite

FOLGOSINHO Q;

Portugal

See SITIO DO CASTELO MINE

FONTAINHAS, Gouveia area, Portugal

Portugal GS Map Memoirs. Map 17D (Gouveia)

Copper concession of FONTAINHAS, also
has secondary U minerals

GONÇALO, Guarda,

Portugal
18-C

MA 15 540. Pegmatite near gonçalo has
a Gr-bearing topaz

GUARDA

Portugal



18-C

BM: Torbenite

KARIZ, Minho,

Portugal

MA II 413

Sabugalite

LAGOAÇA, Moncorvo,

Portugal

MA 15 518 W veins with ψ morphs of
ferberite after scheelite; scheelite;
wolframite.

LIXA, Felgueiras, Douro Litoral, Portugal
See also AMARANTE

MA 17 176 (MM 34 482, 1965 (Tilley Vol)). Nigerite, Sn-Al mineral
hexag xls enclosed in white mica, assoc. with
lithiophyllite, apatite, & vivianite in pegmatite
at Lixa village, 43 km ENE of Porto. Flattened,
brown-red xls. up to 250 μ diam, 50 μ thick.

MANGUALDE, Beira Alta, Portugal
[+]
17-B(2A) [I]
(MM 31 819) (MA 8 343)

MA 15 357 phosphate pegmatites; stewartite;
phosphosiderite; hureaulite;
rockbridgeite; vivianite.

MA 15 210 Bermanite, o'rh, tabular, as
alteration product of lithiophyllite &
triphtie in the Mn-Li pegs.

MA 15 392 Be-Li pegmatite has sulphides,
mainly bornite, chalcopysite. Also
exsolved wittichenite, sphalerite, luzonite,
"white chalcocite". Also occur: molybdenite,
tennantite arsenopyrite, native bismuth [CONT]

MANGUALDE, Beira Alta Portugal (II)
17-B(A)

covellite; blue chalcocite; "orange bornite"
MA 15 393. Alteration prods of lithiophyllite
include stewartite, phosphosiderite;
hureaulite; rockbridgeite; vivianite.

MA 4 328 Pegs near Mangualde, Beira Alta, of
qtz, o'cl, & white mica w. accessory beryl, pale
blueish or yellowish 5-6 cm prisms.

MA 6 440 (MM 24 618 - Mesquitelite from Mesquite, nr
Mangualde). Mangualde: Details of granites
& pegs around M. Qtz, albite, o'cl, moscov, torrom,
cassit, heterophyllite, mangualdite;

MANGUALDE, Beira Alta, Portugal (III)

17-B(A)

brandäosite; lithiophyllite; trypsite;
beryl; molybdenite; blende; chalcopyrite;
pyrite; arsenopyrite; metatrypsite;
neopurpurite; pseudopalaite.
strengite; müllersite; mesquiteite.

Heterophyllite is a var. of biotite

Brandäosite is an almandine-spessartite

Müllersite (= zamboninite) green earthy, in crevices

Mesquiteite is a clayey alter. of feldspar, near

Lithiophyllite is the most abundant phosphate

Mangualdite is rough olive green xls. Strengite -

violet-blue crust on other phosphates. Meta-
trypsite - black alter. of trypsite. Neopurpurite = violet alter.
of lithiophyllite.

MANGUALDE, Beira Alta, Portugal (III)
17-B(A)

brandäosite; lithiophyllite; triplite;
beryl; molybdenite; blende; chalcopyrite;
pyrite; arsenopyrite; metatrilite;
neopurpurite; pseudopalmit.
strengite; müllersite; mesquiteite.

Heterophyllite is a var. of biotite

Brandäosite is an almandine-spessartite

Müllersite (=zamboninite) green earthy, in crevices

Mesquiteite is a clayey alter. of feldspar, near ^{montmoull.}

Lithiophyllite is the most abundant phosphate

Mangualdite is rough olive green x/s. Strengite -

violet-blue crust on other phosphates. Meta-
triplite - black alter of tripl. Neopurpur = violet alter
of lithioph. Pseudopala = ^{micro} flesh-red x/s alter of lithioph.

MANGUALDE, Beira Alta, Portugal (IV)

17-B(A)

MAS 343 "Mangualdite" = manganvoelckerite
(mangan-oxapatite). Chem, opt, x-ray.

MM 31. 819 Isokite, dull white earthy crush
on partially ox. & hydrated triple ("metatriple")
(massive, block with brown triple in it)

Lithiophyllite; rare manganapatite,
heterosite, pneumolite, strengite,
torbernite.

Soen "Geol of Viseu" (1958). Most import peg. that between
Mangualde Rly Stn & Mesquitela @ ca 2km SSE of Mang.
import. amts of beryl & Li-bearing phosphates, also cassiterite

MEDAS, ESE of Porto, Portugal

RSWB 8/69 Quick look at dumps (Au/Sb)
not far from road. good stibnite
as interlocking needles filling cavities
in quartz.

MIGUEL VACAS MINE, Vila Viçosa, Port.

J. A. Martins, Priv Comm. Likethenite

DO NOT SPREAD
THIS INFORMATION
AROUND TOO MUCH!!

"Vila Viçosa" will suffice!

←+

MONCORVO,

Portugal

See also LAGOAÇA

MA 11211 Haematite, import. deposits

MONTES CLAROS, Portalegre, Alentejo, Portugal

See NIZA

MOREIRA, Vila Pouca de Aguiar, Portugal

MA 15, 541. A narrow, zoned pegmatite near Moriera, has, in the quartzose core, heterosite; bermanite; hureaulite; phosphosiderite; rockbridgite; stewartite; also (?) stunzite & an unident. white powdery mineral "A"

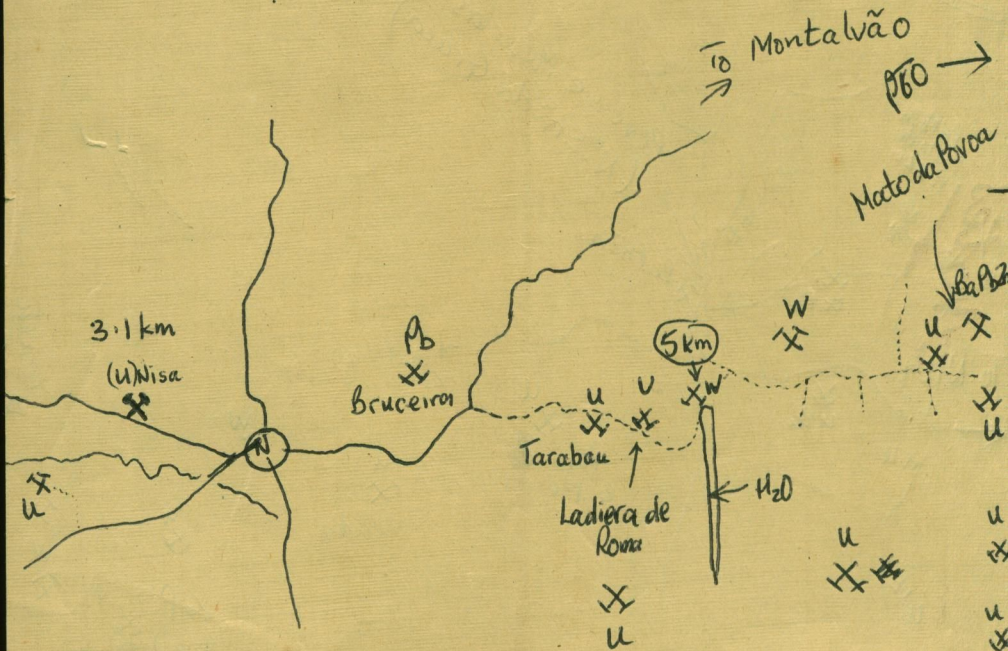
NIZA, Portalegre, Alentejo, Portugal 28-B

MA 19 101 L. Pilar. U mins in schist of contact
metam. aureole of monzonitic granite between
villages of NIZA and MONTE CLARO.

pyrite; pitchblende; chalcopysite; siderite;
marcasite; sooty U-minerals; autunite;
autunite-uranocircite; torbernite; sabugalite;
saléeite; phosphuranylite.

J. de laencastre: "Nisaité" with saléeite & phosphouranylite
↑ New U mineral.

28 B. NISA. distics from centre of Nisa



All tracks

28B

↑ To Montalvo

Povo e Meadas
(N. Sr. da Graca)

Ba Pb Zn
Mato da
Povo

Notes

To N. Sr.



x

u

x

u

x

u

x

u

x

u

x

Ba Pb

u Ba

u

x

Ba Pb Zn

u

x

Povo e Meadas

Mala Brigo
Δ

u

x

Meada

xw

u

x

x P

x

w

Vale do Sancho

Careba
Δ

w

x

w

x

w

PALHAL, Portugal

See also TELHADELA

Tim's French Min. Magaz. ^{seen} 6/10 Cu, Ni mine
good sec'y's.

PALHEIROS DE TOLOSA, Nisa area, Port

RWB/Junta 9/69. Abandoned mine.

Dumps & opencast in vein or
band not defined by quartz, in
granite lutumite, ind. One rather
good but smallish specimen. More
time needed.

PANASQUIERA, Beira Baixa, Portugal. (I) ^{20-c}

A.H. Clark: vg xls, vivianite, cassiterite, wolframite, ~~aspy.~~
BM spec. vg apatite vvg violet scorodite

MA 18, 20. Gudmundite FeSbS in wolframite-
cassiterite-quartz veins.

MA 18 44 Magnetite, stibnite, bertrandite;
(A.H. Clark) scheelite, tungstite, hydrotungstite, scorodite

MA 17 338 A.H. Clark. Molybdenite 3R (rhombohedral), and
normal hexagonal (2H) → in greisenised granite, rare.
→ in veins

MA 15 518. Thadeau:
518. Bloote de woeff. Fluorescent Mn-iferous fluoroapatite

MA 3 297 Cassiterite xls

PANASQUEIRA MINE, Beira Baixa, Portugal.
20c

BM: Violet scorodite xls.
Large spec. apatite, vg grey green xls, with
pyrite & dolomite

RSWB coll. Cassiterite, vg xls. Wolframite, vg xls

A.H. Clark. Vg xls cassiterite, wolframite, vivianite
Priv. Comm. arsenopyrite
1962

Comm. Serv. Geol. Port. Apatite - Barroca Grande;
Rebordões section: Beryl, bertrandite,
stibnite, Mn-apatite, etc etc. Map, PTO

Panasq.



Rebordões



Barroca Grande



BH 1670

Communic. Serv.
geol. Portugal.

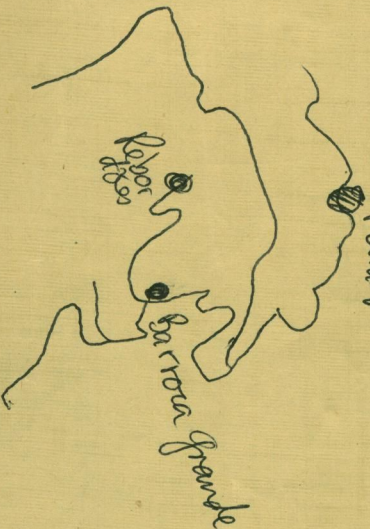
Notes

Panama -

Apar. - Seção da Barraza
grande

Rebordões Section - bartramide
brazyl, shib, mu-apar ate

Panama



PERGULISA MINE, Sobral da Adiça, Portugal

See also SOBRAL DA ADIÇA

MA 1144 Descloizite, crust of small brown
x/s w. wad on lst. From this zinc
mine, also white 5x1 mm prismatic
smithsonite.

MA 1147 Zn mines. blende → smiths → hemi

PONTE DO LIMA, Minho, Portugal

- MM 30 737 Limaite, new stanniferous var. of
gahnite, $Zn/Sn \approx 3/1$. Octah. in peg. near P.do L.
MA 12 572 Limaite, small (0.5-2.7 mm) brown
rounded octahedra in peg at CABANAS, near
P.do L., prov. Minho.

Near CABRAÇÃO, P.do L., - Serra de Arga,
many pegs in mica-sch. adj. to granite.
32 min. spp. described eg tantalite-columbite
in tabular xls; cassiterite.

QUARTA SIERA Quarry, Sabugal, Portugal.
? = QUARTA FEIRA (on map)  21-A
See also SABUGAL

MA II 413 Sabugalite [new] here, and
at two other Portug. locs. Crusts
of minute (1 mm) yellow plates,
perfect cleav (001); G 3.20

QUEIRIGA

Portugal

~~See URGEIRIGA (?=)~~

REBOLEIRO MINE,

Trancoso, Portugal.



14-D

MA 16 611.

Uranophane.

MA 15 357

Metatorbernite

G Mus: vq

metatorbernite I, good m-autunite

Ruy GOMES MINE, Moura, S. Portugal
See also SOBRAL de ADIÇA

MA 10 55 Fe, Cu mine. Ancient → 1921

SABUGAL,

Portugal

See also QUARTA SIERA QUARRY; KARIZ; BENDADA
21-A

BM Autunite, v.g.

MA II 413 Sabugahite with saléeite in
pegmatite. saléeite - minute yellow
plates.

SABUGAL

Portugal
21-A

Sabugalite; autunite, superb xl groups.

Min. U. de H-K: Mina da Quarta Siera, Sabugal:
Salceite, with metaautunite, phospho-
uranylite, & sabugalite on altered
granite

SÃO VINCENTE

Portugal

BM. Autumite, v.g. single xls.

SEIXEIRA, Guarda, Portugal.

See BENDADA.

SENHORA DAS FONTES, Pinhel-guarda, Portugal

MA 19 101 V. rich u mineralis'n. At 40m depth
mostly autunite, below which level "uranium
products and pitchblende become increasing
predominant". ? Low temp h¹ thermal.

Junta N.E. Ferrian Saliente. Working. Crumbl
shale matrix.
Not far from Cotimos.

SENHORA DAS FONTES, Pinhel-guarda, Portugal

MA 19 101 V. rich u mineralis'n. At 40m depth
mostly autunite, below which level "uranium
products and pitchblende become increasingly
predominant". ? Low temp h' thermal.

Junta N.E. Ferric Salicite. Working. Crumbly
shale matrix.
Not far from Cotimos.

SERRA DO GERREZ

Portugal

MA 15 238 granite pegmatites with quartz
xls (some smoky); orthoclase (p. 393).

SITIO DO CASTELO MINE

Portugal

BMS News 97 Feb 2016 23-27 David Roe

= FOLGOSINHO Q'y nr Folgoso village
(at top of hill) nr Quinta das Cegonhas
camp site, at foot of Sierra Estrela
[can't find it on my maps!].

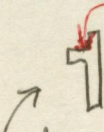
Much quartz; apatite veins. A hard black
metallic-looking football-sized boulder yielded
colourful phosphates including good
strengite, phosphsiderite, cacoxenite, strunzite,
beraunite, tripelite, rockbridgeite, black
nsutite.

SOBRAL DA ADIÇA, Moura, S. Portugal

See also Ruy GOMES MINE; ~~PERGUISAMINE~~

MA II 47 ~~PERGUISA~~ ^{← (P) →} & HERDADE DE VILLA RUIVA
MINES, in the S. da A. district, 21 km
SE of Moura. Worked by Romans,
and 1919-1925 for Zn, Fe
Ore white & clayey, with jasper; or
brown & earthy w. limonite. Blende
→ smithson. & hemim.

TARABAU trial, Nisa area Portugal

Reus 9/69 Taken to trench  at
top of rise in field by
road junction. (probably red spot
on map). Dug at sides. (spec)
e got torb, autum etc. e superb
yellow fluffy phosphuranylite (IR checked)
(Wish I was by myself, with time to
collect properly!)

TELMADELA,

Portugal.

see also PALHAL

Tim's French Min. Magazine ^{seen} 16/10.

Ce, Ni mène

good sec'y

Chem Abs 68 71172 Pb/Zn/Ag deposit
with galena, blende, jamesonite,
bournonite, pyrargyrite, tetrahedrite,
marcasite, argentite, arsenopyrite,
pyrite, chalcopyrite, polybasite.

TOJAL, Vizeu, Portugal
See also BODIOSA, URQUERICA

14-D

MA3 138. Qtz-wolframite veins in slates
e schists near granite contact at
Tojal, 30 km NE of Vizeu.

URGEIRICA

Portugal

17-C □

25 km S of Beja

MA 15 357

Uraninite; phosphuranylite;
α-uranophane; autunite

MA 3 139. In the Vizeu region. Autunite

& torbernite in crevices in the upper levels, a grey-black mineral deep.

The U veins of the area sometimes carry wolframite of BODIOSA, TOJAL.

MA 12 444 phosphuranylite, tiny laths.

Everhart & Wright. Econ Geol (1953) 48 83.

VIANUA DO CASTELO, Maxedo, Portugal

MA II 187 Zincian rockbridgeite, crust of
black radial fibres w. dark green streak
with reddingite & blende as alter.
of triphyllite in pegmatite

VIARIZ

Portugal

BM: Autunite on smoky quartz

VILA CHA, Ponte de Barca, N. Port.

"Jems" (1972) Big working quarry, high
up above Vila Cha, E of Ponte de
Barca.

Excellent quartz, including rose; beryl,
tourmaline.

VILLA COVA, Serra du Marão, N. Portugal

MA 12 488 Near Villa Real. Magnetite
one with some albite, biotite,
apatite, pyrite, chalcopysite,
bismuth. In part ancient.

VINHACA property,

Portugal

BM. Torbernite, v.g. single xls.

VIZEU

Portugal

See also BODIOSA; TOJAL; URGEIRICA.

BM: Autunite, v.g.

Portugal, Spain

MA 19 $\begin{smallmatrix} 3 & \times \\ 2 & \checkmark \\ 1 & \end{smallmatrix}$

18 $\begin{smallmatrix} 17, 20, 24 \end{smallmatrix}$

17 $\begin{smallmatrix} 608, 306, 72, 176, 338 \end{smallmatrix}$

16 $\begin{smallmatrix} 305, 35; 646, 611, \end{smallmatrix}$

15 $\begin{smallmatrix} 26, 163, 164, 243, 116, 102, 238, 195, 107; \\ 516, 520; 357; 327; 516; 383; 540; \\ (2110) 357, 343, 392; 521. \end{smallmatrix}$

14 $\begin{smallmatrix} 54, 112; 112, 149, 155, 356 \end{smallmatrix}$

8 $\begin{smallmatrix} 343 \end{smallmatrix}$