Items to Photograph

1. At. 382 - calcite veins in basalt
2. Block resting on top of mesa.
3. Gravel - rock contact at tops of cut
   east end -
4. Veins on stick.

Aug 19, 1947 Tuesday.

X200 Height [illegible], [illegible].

201 foot of knoll [illegible] outcrop.
contact should be drawn to [illegible].

202 [illegible] of creek.

203 Small [illegible] south, gully, [illegible]
25 feet.

204 Small [illegible]. Pits and
[illegible] ditch, show weathered soil
clay and rock. Syenite?

205 Weathered rock. Syenite?

206 Small gully, etc. Weathered rock
with a network of [illegible] veins.
[illegible] float is common.

207 Same weathered rock.

208 top cut, middle of [illegible].
extends 10' either way.
Bottom of pit rock is altered to a
clay. Also appears to be in
solid igneous rock (weathered)
presumably syenite. Sample
130 from here.

209 Edge [illegible] cut.

210 A on [illegible].

211 Soil.

Aug. 11, 19[illegible], Tuesday

x 212 Red soil.

x 213 top bottom W. edge of outc. 18 [illegible]
In [illegible] rock. Some [illegible]
[illegible].

x 214 Bottom of out. Top. 4' [illegible]

215 Top of out. in angle.
The [illegible] rock is [illegible]
ground and [illegible], I believe the
same as the heavy float over
up the hill.

216 Heavy float (syenite)

217 Heavy syenite float.

218 top of out.

219 15' E to edge of dump.

220 Syenite, [illegible].

221 foot of [illegible].

222 S. edge of [illegible] high, [illegible]
about at 450 contour.

223 On [illegible]. slight [illegible] W.

224 Edge of nepheline syenite
out crops. [illegible]
Knob. [illegible] 132

225 top knob, [illegible] E

226 Top of ridge, out crop
[illegible] 30 F.

Aug 19, 1947 Tuesday

227 Edge of outcrop.
228 [illegible] to S.E. Soil.
229 foot of cut, top & bottom.
230 " " ", [illegible] [illegible] [illegible]
with is completely [illegible]
231 top cut. [illegible] [illegible] in
[illegible].
232 top cut, [illegible]
233 " ", edge of basalt
out crop at [illegible] [illegible]
rocks.
234 top cut, edge of basalt
outcrop.
235 edge of [illegible] Basalt [illegible]
236 top and bottom of cut.
237
238
239
240
241
242 Much to W. the cut.
243 15' E to fence. then plowed
field.
244 at fence. (4" further)

245 Contains on line 20' to fence

246 at fence. On fill. 20'
South the drop is about 8'
lower.

247 Along fence, contours
contours about 5' South.

248 End of cut area 20' N of
point small tree

249 Edge of marsh, W to Creek
natural contour here

250 Δ on edge of cut.

251 Top cut at corner.

252 Top cut, deep outside tree line.
Heavy outside flat

253 Edge of cut area (generalized)

254 edge of cut (South), Basalt
Outcrop to E.

255 edge of cuts, E edge of Basalt
outcrop. ; flat E.

256 edge out ... W.

257 Marsh to N.

258 Center of Creek, ... up to E
marsh N.

259 Curve between - to W. bank of
Creek ... E, 2' down.

Note in the eastern most area. The cuts indicate the small hill was all basalt. That is the only rock except for ... some weathering. Basalt. The Basalt is fairly fresh.

Aug. 19, 1947

X260 Center of creek, 2' below gravel surface gravel flat.

261 center of creek start of S bend.

262 foot of marsh W

263 " " " "

264 edge of cut E, edge of cut exposure (Basalt.)

265 Δ

266 Δ

267 Δ

268 Δ

269 Δ

270 Δ

271 Δ

272 Δ

273 flat, lowland until [illegible] sand below.

274 Gravelly Soil,

275 Sand, Slopes [illegible]

276 ~~[illegible]~~ and [illegible] material E. and (western inserted above)

277 Corner of cut.

278 " " ", irregular to here.

279 edge of cut, muck pile starts to S

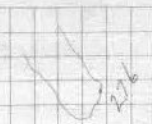
280 edge of cut, North 6' 10' W

281 " " " " 10' W

282 E. edge of cut

X 283 Missed

after this point field & Inst. notes Check



Aug. 20, 1947

284 Top out [illegible]
285 A. (U.S. 3)
286 20' [illegible] to edge of ditch.
287 N.E. corner of rectangular pit.
18' to S.E. corner. pit 2' deep.
[illegible] [illegible] 7 [illegible]
288 Corner of pit. (N.W.)
289 higher to E.
290 Small. Coil.
291 higher E. N.E.
292 See sketch. Gulley is 6' deep
and about 5' wide.
[illegible] Bottom of the creek shows
weathered green rock. 10' up
main channel there are [illegible]
more resistant remnants in
this weathered rock. It looks
like Basalt. Sample
#133 is that solid rock:
133-A is weathered rock
next to it, for [illegible] [illegible]
293 Bend in Creek. 8' up E N
Gravel & Soil 6' thick
Sample 134 is weathered
rock from this point.

Aug 20 1924

x 294 at bend in Creek 5' up.
in Soil and gravel upon.
295 In small sinkhole of flint, soil.
296 In gulley. 6' up. gravel
at bend.
297 Center of creek, gravel S.
edge of Basalt, 7' up.
298 Center of Creek. ~~on bank~~
on gravel flat. 2' up. at
bend.
299 foot swell mostly basalt flag
300 Swell of flint
301 center of creek just 15' [illegible]
[illegible].
302 Pd cast.

Aug 21 Thursday
303 Just below ditch.
304 On S granite flat. nothing
in place.
305 at S angle, in bottom, small (middle of creek)
patch of [illegible] rock.
probably [illegible] flint
[illegible]
306 Swell, flint only.

Aug 21, 1947, Thursday.

307 Slide on float

308 3' E of center of creek., 6' exps. beginning 10' South there appears to be a general change in the Basalt on texture, getting lighter.

Sample 135 should be oriented so that the light coarse grained rock is on top of the dark fine grained rock. Sample 136 is about 2' north of 135.

309 Is on hill, [illegible] float only.

310 Center of Creek. Darker fine grained Syenite here, 4' exps. w.

311 from here North syenite outcrops.

312 White coarse grained syenite. Sample 137

313 gentler slope

314 Standard syenite outcropping.

315 lighter syenite.

To the very crest of the ridge there is "Basalt" float.

Aug. 21, 1947 Thursday

x316 Swell, syenite

317 Δ on flat area.

318 Swell in between. Syenite.

319 "Basalt" inclusion in syenite.

~~320~~ 321 Centering Creek. Only basalt [illegible] line, quite shallow.

320 In swale, center of Creek line.

322 Δ On flat area above rockwall.

323 Swell, steep, to NW.

324 Flattens off here. Swell, syenite has scattered phenocrysts.

32~~4~~5 Swell, Sample is of smallest [illegible] in syenite #139

325 Swell, on syenite. Sample 140 is about 20' n.w. This is an inclusion in the syenite. Elongate oval about 3' long. [illegible] are [illegible] of these [illegible]. This rock [illegible] fully [illegible] basalt blocks and schlieren.

327 is here

326 On syenite.

327 On syenite.

328 Steeply [illegible] [illegible].

329 Swell.

O.K. here 330 ~~Swell. Syenite.~~ W. [illegible] retaining wall. [illegible]

Aug 21, 1947

X331 In sinkhole. Basalt float. There is float from here to crest. (V)

332 Center of creek. Soil

333 edge of red soil. Some basalt material as float.

334 Swamped soil. Swell.

335 foot of retaining wall. Creek goes over here.

336 E. end of retaining wall. Material continues.

337 Flat here. Steep 30' S.

338 Swell, flat.

339 Sinkhole, soil

Bm 340 about N. edge of basalt. (out crop any here to South.)

341 South edge of basalt outcrop. probably goes further S.

342 S. edge of basalt outcrop. Soil below.

343 Soil and scraped float, swell.

344 Basalt out cropping.

345 Basalt " Swell.

346 N. edge of basalt.

347 " " "

Aug. 21, 1917

X 348 On "basalt" swell.
349 "Basalt" float, to E. outcrops goes thus far south
350 Basalt outcrop float soil south.
351 S. edge of basalt.
352 15' south on line to edge of Basalt
353 Swell, litter and soil.
354 N. edge of basalt.
355 Syenite float.
356 Syenite float. Basalt lies just
357 Over syenite float. about between these 2 points.
358 Syenite.
359 " Swell.

Thursday

X360 Steeper to N. soil.
361 Swell, soil float.
362 "
363 about S. edge of Basalt outcrop. May be just large float block.
364 Soil only.
365 Soil (No outcrops in creeks all in gravel.
366 Swell, soil.
367 Soil.

Note: Basalt runs about 15' N. of Δ 267

Thursday. Aug 28, 1947

X 368 in [illegible]
369 [illegible] to N.E., soil
370 [illegible] small creek, 1' down
371 [illegible], soil.
372 [illegible], head of valley, sharp
[illegible] [illegible] [illegible].
373 on [illegible] [illegible] 1½' up [illegible] way
374 Soil.

Friday Aug 29, 1947

375 Syenite float, no outcrops, [illegible]
376 " " " " "
377 Syenite float.
378 Δ
379 Small syenite outcrop, heavy float
Sample 141
380 Small heavy float.
381 [illegible] syenite float with
augite-feldspar inclusions
382 Syenite [illegible].
383 [illegible] [illegible] [illegible] [illegible]
84 all is syenite
385
386
387
388
389

[illegible] at Δ 390
[illegible] N 65° E, 40° N
there is the [illegible] of control.
The syenite has scattered
large [illegible] crystals of [illegible]
and feldspar. [illegible] [illegible] [illegible] [illegible]
abundant [illegible].

Aug. 29, 1947 Friday

x390
391
392
393
394
395
396
397
398
399
400
401
402 Shot from △4, , soil.
403 end of cut, top. W. end of [illegible]
goes 9' E.
404 top of gully 7' down 6' N.
at bend in gully.
405 Knoll, 2' down for 15' N.
406 End of cut, 2' higher to W.
407 On soil.
408 Soil.
409 Slight swell.
410 Soil.
411 △ on flat: [illegible] House here once
412 Soil
413 [illegible] Slopes N

Aug. 29, 1997 Friday

X 414 Soil.

415 Soil

416 Soil

417 Soil.

418 Soil

419 Soil flat here.

Aug 30, 1997 Saturday

420 Δ.

421 Soil, flat,

422 Soil, slightly higher to W & S [illegible],

423 Soil.

424 Slopes to W.

425 Top cut. [illegible] pile E.

426 E. edge of [illegible] pile.

427 Crest of small rise.

428 End of cut. E side. cut [illegible]

Soil. [illegible] pile E.

429 Soil.

430 Soil.

431 Soil.

432 Soil.

~~434~~ 433 Δ Soil Slopes W.

43~~5~~ 5 [illegible] Sinkhole.

43~~6~~ 6 Soil.

~~44~~ 37 [illegible]

Aug 30 1947 Saturday.

438 Center of work
439 on swell, coil only
440 ~~[illegible]~~ on coil - upside down
441 top cut on edge, cut on face
except for head which is in
overhead, cock and vein material.
442 Edge cut,
443 Corner of cut.
444 " " "
445 edge cut.
446 top cut at point.
447 " "
448 top cut.
448 " "
449 top cut
450 " "
451 top cut.
452 top cut.
453 top cut.
454 " "
455 " " 2 [illegible] to [illegible]
456 " "
457 edge of cut [illegible].

150 / 229

Harder Extension

(Sept 5, '47

11

#131 NW Corner of test pit
6 ft Square

#132 Topog Shot

#133 Topog Shot

#134 E End of Pit

#135 West end of above pit

#136 Topog Hot Spr. Ss Float

#137 NE end of Trench

#138 SW end of above Trench

#139 NE End of Trench

#140 SW End of above Tr

#141 NE corner of test pit 5' square

#142 E end of trench 5' wide 3' Deep

#143 W end of trench

Massive Ledge of Ss. in center of pit

3ft deep.

#144 NW cor of caved shaft
6' Deep 8' square

#145 SW end of Trench 7' deep
4 ft wide

#146 N. End of shaft

#147 S End of shaft

#148 W. end of trench Joined to
above shaft - 3' wide 3' Deep

#149 Center of west end of
"L" shaped trench 3' wide

#150 SE corner of 4'x6' Test pit
3' deep

#151 NE Corner of test pit 4' x 7'
3 ft deep

#152 NW end of Trench 4' wide 3' Deep

#153 SE end of Trench

14' deep 149

#154 NW End of 4x7' Trench
4' Deep

#155 Topog Shot

#156 SE End of Trench
13' x 5' 5' deep

#157 SE Corner of deep
shaft 9'x4'

#158 NE corner of Trench 11'x4'
3' deep

#159 NE Corner of Trench

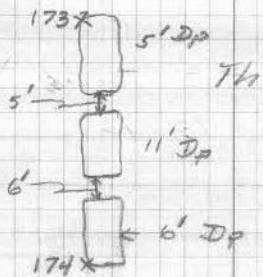
#160 SW Corner of above Trench 8' dp.
11' square

#161 NW Corner of Trench 4'x8' (2' Dp)

#162 NW Corner of Trench 4'x7' (3' Dp)

#163 NW Corner of Trench 4'x10' (6' Dp)

#164	NW Cor Test Pit 5'x11' (3' dp)	
#165	Topog Shot	
#166	Topog Shot	
#167	Topog Shot	Heavy SS. Float
#168	Topog Shot	
#169	Topog Shot	
#170	Topog	
#171	Topog	
#172	Topog	
#173	NW Cor of N.S. Trench 5'x10' (5' Dp)	
#174	SW Cor of N.S. Trench (sec Sk.)	
#175	Center of N. end of Tr	
#176	SW corner of S. end of above Tr	
#177	Topog	
#178	Topog	
#179	Topog	
#180	Topog	
#181	Topog	
#182	Topog	

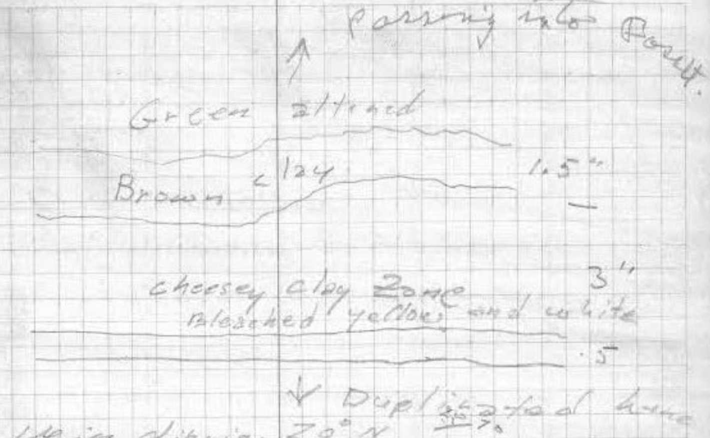


Three Trenches in line cw. width 5'

M. C. Reitel Sept 6 1957

II 80 (45) joints there is a more set which controls breaking in Esch Valley on E. side. Second major set N 20° W almost vertical.
Third major set runs N 80° E and is almost vertical

at Islands which we photographed.



vein dipping 20° N

this is typical of all the alteration of the Basalt.

Along Main highway. Just E of Cemetery. 125' from road going to [illegible]

$\angle^{50}_{20}$ low angle fault.

massive bedded Sandstone with shale partings 6" thick.

Sample N 1 is Sandstone

Bedding: $\overset{35^\circ}{\searrow}_{30^\circ}$

N-2 is clay parting.

at N-3 opposite road [illegible]. Here we have darker grey Sandstone.

$\frac{II}{85}$ 80 has qz and Brecchia along face. Other joints show the same thing.

Sample N-3 is Sandstone

N-4 opposite first Tourist cottage South side of road.

N-5 Sample of Sand [illegible]

N6 - [illegible] from [illegible] Same place as N-5

N-7 [illegible] material in Sandstone at same place as N-1, [illegible] lies across a wedged shaped area, Clay [illegible] above it.

Magnet Cove Rutile Pit:
Tuesday.

In Special area.

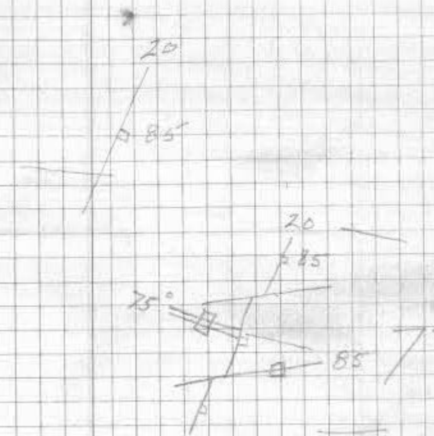
at A6, here pure calcite veins cut through the yellow mineralized material. The rutile is not associated with the calcite vein. It is irregularly scattered through the rock.

Near same spot rutile veins cut through other vein material. Also there is disseminated rutile. There is no concentration near the rutile veinlet. It would appear that there was more than one age of rutile.

Around A 58 the rutile lies in irregular veinlets in the Y. M. Area. There appears to be no structural control of the rutile here.

There are also mixed veinlets of [illegible] & rutile

up Creek Valley



The joints are mainly in the N20°E one is offset by the N85°E set. Topography is following joint in a pinch and swell fashion to the N20°E joint. It stops abruptly but the joint it was following continues to the E.

This is the primary jointing. The other jointing cuts across it.

Big dike of Photograph Chute S55°W.

Sept.

H146 end of T is in Sandstone.
it appears to get coarser grained
near the deep part of pit.
From W-E. In the finer
grained areas the Sandstone
~~[illegible]~~ has some cavities lined
with large qz. crystals.
This hole appears to have
little if any Brookite. Only
Roman qz!

HS146 10' Channel.

H159 ss/clay 55° [illegible] 30 bedding
5.5 Cut is [illegible] 10' deep

H161 Sandstone

H162 Sandstone

~~H163~~

H164 Is clear sandstone.

H163

HS163 35 / 20

HS163 6' channel.

HS163B is clay material.

H150 Sandstone

H149 L shaped pit. to wide spot it is solid sandstone
In wide spot near H127 there is flaky sandstone and large clay masses. as at H163.

HS127 3' channel.

H173 25 ⊢35 – Bedding. 

3' deep.

HS173 All in weathered igneous.
This is from centerpit 173–174
12' deep.

H174 All in igneous material.
5' deep.

H151 Sand Stone.

H152 Fe Sand Stone.
T85 Bedding.

H154 Sand Stone

H156 Sand Stone

H157 North end, coarse gravel floors
gy. and clay.

H158 This is the shaft.
26' deep abundant with
on dump.

H 145-C

H140 at 25' from end of pit is
contact ~~with~~ with igneous contact
with Sandstone. (No Sample.

H142 ~~Whole~~ pits is in
& igneous rock—^wrong completely.
H143 Contact with sediments 5'
W. of SE.

H141. This pit is all in igneous. wrong

H144 Contact runs along W. wall
of pit.

HS-144 5' deep channel. off E. side.
~~HS-145~~ B Sample from West end of pit
HS 145-B Igneous or Sandstone - can't tell
H145 - Here W. end of pit has
large fragments of porous coarse
grained rock. It may be
Sand stone. middle of pit is
clay with igneous veinlets,
[illegible] veinlets.

HS-175 5' channel,
H-175 N[illegible] [illegible] S.S.
rest is igneous. float goes
almost to bottom and end.

H126

HS145 - 6' channel.

HS145-C. This is ~~as~~ from dump.
The pit itself was examined
thoroughly and ~~[illegible]~~
~~found [illegible] [illegible] [illegible]~~
~~veins on the Corner crystals.~~
and also one occurrence in the
pit. There are white veinlets in
the red clay as well as large white
clay masses. The bauxite is
disseminated not in veins. (in veins also)

HS-120 5.5' deep. clay vein
3' wide at N. end of pit.

Contact of vein material
25 ft. 3'S from N end on W. side
8' S on E. side.

HS120B is Qz material from vein
mass.

dirty chamoisite.
HS 131 The material is apparently
weathered igneous rock. 4½' deep.

HS 131B Sample of rock

HS 134 3' deep. The [illegible] clay stone
is weathered material.

HS134B. Sample of igneous rock
for [illegible] section.

HS137 Same igneous rock.
with clay zones. Sample
3' deep.

HS 139 Contact with sandstone is
about 10' E. Sandstone is
coarse gravel(?) South
float

Sand grains

HS-95A Sample of clay from E. wall of shaft. Sample covers 6.5'.

HS-95 B ~~horizontal~~ vertical channel of clay and quartz on W. wall - cut of shaft but North.
6" deep channel

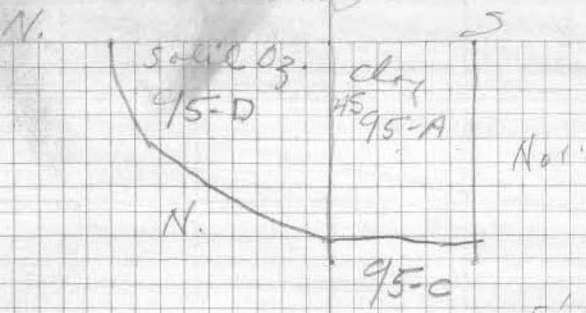
HS-95C Novaculite(?) from Bottom of shaft; for thin-section.

HS-95D chip samples in horizontal line across quartz area.

at last E. pit.

HS-96 4' channel.
clay 3' wide, Qz 3' wide.
in Sandstone.
Joint, bedding plane or side of fault. 30° 55

Looking E



5' from bottom of pit is Novaculite.

Then to top of shaft on E. side is clay and Qz [illegible].

There is no clay etc on west wall.

HS-5A 8' deep. at point H5A

HS-6A 3' deep. at point 6A

HS-56 14' deep at point 56

HS-58 9' deep.

HS-144 (Handy Property) 3' deep.

HS-75 7' deep.

HS-76 (10' ea. of end of pit) 4' deep.

HS-78 6' deep.

HS-77 4' deep.

HS-82 5' deep.

HS-83 Smoky quartz

at Δ75.

Sample H-X is vein material in a general mass of fragments. Some are clay, some are altered-weathered igneous rock.

at Δ79 there is apparently sandstone in piles only. Probably extending 25-E.

Sample Notes for
Hardy Property. These samples
are for chemical analysis.
Also some should be given a
petrographic sampling.

HS-21 channel sample at point
21. Sample from channel
1.7' long. Vertical sample.

HS-41. channel sample 1" wide, 1"
deep. 14' long vertical.

HS-26 at DE6, channel 10' long.

HS-29 5' deep. (first 1.8' feet almost
solid sandstone fragments
not sampled.)

HS-14 5' deep at point H14

HZ-42 7' deep. (Heavy sandstone at
bottom.)

HS-47 7.5' deep.

Sample numbers are
for points (plottable at
these spots.)

M. C. Rutile

141 at D X 379 Syenite for thin section.

142 at D 390. This is type of rock at crest of ridge. There are abundant inclusions

143 N.W. corner of 10' scale area Contact of yellow thin material with Basalt. Soft broken material 6" N of contact. Then harder material. 143 is soft broken material.

144 Harder material.

145 Eudialyte Syenite - near Baptist church.

146 Sample of 3" dike on which photography was taken.

Sample Notes

130 Clay from pit ~~at~~ near Δ 208
alteration of Syenite rocks.

131 20' North of X 215. for thin-section
(the coarse grained rock looks to
me very similar to the coarse
grained material in the pit which
is thoroughly altered to clay)

132 at Δx 224. Nepheline is
visible in thin. It may
be different from the rocks
to the south. Thin-section.

133 at Δx 292 for thin section

133-A for Heavy minerals

134 at Δx 293 for heavy minerals.

135 at Δx 308, for thin-section.

136 at Δ 308. rock immediately
N. of 135.

137 at Δ 312 Syenite thin-section

138 Out crop at crest of ,
ridge. Thin-section.

139 at Δ x ~~[illegible]~~ 324 block Mine
in Syenite.

140 at Δ 325 Inclusion in
Syenite. Thin-Section.