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12/05/88

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PRIMARY NAME: POOLS PROPERTY

ALTERNATE NAMES:

ASH CREEK GOLD MNG. & MLG.

PINAL COUNTY MILS NUMBER: 376B

LOCATION: TOWNSHIP 5 S RANGE 16 E SECTION 3 QUARTER NW  
LATITUDE: N 33DEG 01MIN 22SEC LONGITUDE: W 110DEG 42MIN 15SEC  
TOPO MAP NAME: CHRISTMAS - 7.5 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:

GOLD  
COPPER  
LEAD SULFIDE  
COPPER SULFIDE

BIBLIOGRAPHY:

- ROSS, CLYDE P., ORE DEPOSITS OF THE SADDLE  
MTN AND BANNER MINING DISTRICTS AZ. USGS  
BULL. 771, 1925, P. 49 *attached*
- ✓ADMMR LONDON-GILA GROUP FILE-SEE MAP *No info*
  - ✓ADMMR ASH CREEK GOLD MINING AND MILLING CO.  
FILE
  - ✓ADMMR U FILE *NO*
  - ✓UASEC PRELIM RECONN. RPT. 172-488, 1953, P.31 *attached*

assessment work. The deposits are similar and related to the others in this vicinity.

#### CARMICHAEL GROUP

**T55?** J. N. Carmichael has a group of 20 unpatented claims in sections 2, 3, 4, 9, and 10, T. 5 N., R. 16 E. They lie in an arc extending from a point near the mouth of Little Gold Gulch north of the Two Queens mine and down to Ash Creek about a mile from its mouth. These claims contain a number of shafts and other workings made in the course of assessment work, and veins carrying gold and silver have been exposed in them. The deposits are similar to the others in this vicinity.

Near the mouth of Little Gold Gulch, near the southeast end of this group, is a peculiar deposit. A mass of andesite shot through with numerous stringers of white pulverulent material crops out on the east side of the stream bed. In a large part of the outcrop, which is shown in Plate XII, 4, the white material greatly exceeds the andesite in amount, and in the lower part scarcely any solid rock is present. The white material appears to be almost pure gypsum, mixed with a little calcite.

#### TWO QUEENS MINE

**Location.**—The Two Queens mine is near the summit of the ridge on the north side of Ash Creek about three-quarters of a mile north-east of Old Mill. There is a road up to the mine from Ash Creek, but it is now washed out in places. The distance from Finney, the nearest siding on the Arizona Eastern Railroad, up Ash Creek to the mine is somewhat over 3 miles.

**Property.**—The property comprises about nine patented claims. From 1806 to 1908 it was operated by the Central Mining & Development Co., but since then it has been idle. Three small lots of ore averaging \$36.53 to the ton are reported to have been shipped to a smelter. The workings are said to comprise a shaft 260 feet deep with two 100-foot crosscuts off it, a tunnel over 400 feet long with a 90-foot winze off it, and several shallower shafts.

**Character of the deposits.**—The country rock comprises Cretaceous strata of both sedimentary and volcanic origin cut by small intrusive masses. Sandstone, in part calcareous, conglomerate, and carbonaceous shale make up a large part of the Cretaceous strata. The rest consists of andesitic lava, flow breccia, and tuff. West and south of the mine are masses of gray hornblende porphyry which lie approximately parallel to the stratification of the sedimentary rocks and andesitic lava. These are probably intrusions. There is a dike

<sup>44</sup> Stevens, H. I., Copper Handbook, vol. 8, p. 504, 1908.

of quartz-mica diorite at the principal shaft, and another somewhat longer one a short distance to the north. The dump of the principal shaft shows andesite breccia, quartz-mica diorite, and a brown mineralized rock. Under the microscope the quartz-mica diorite is seen to be altered. It has a finer-grained groundmass than most of the rock of this type. The feldspars are sericitized, and the biotite chloritized and replaced by calcite. Pyrite, chlorite, and calcite are sparsely disseminated throughout. The alteration in the andesite breccia is similar to that in most of the Cretaceous lava in the Christmas area, except that there is more calcite than in most specimens examined. The brown rock is thoroughly altered. It now contains calcite, quartz, sericite, chlorite, epidote, and slightly oxidized pyrite. Most of the rock is a fine mosaic of quartz with small amounts of the other minerals disseminated through it, but in places calcite is segregated into masses of good-sized grains. The minerals have evidently resulted by metasomatic replacement of those of some previously formed rock during the process of ore deposition. Although the original minerals are completely destroyed, vestiges of what appears to have been a porphyritic texture can be discerned. From the appearance of this almost obliterated texture and the fact that incipient alteration of the same type has occurred in quartz-mica diorite found at the same place it is thought that the brown rock was produced by the mineralization of quartz-mica diorite.

Gold ore is reported to have been found in pockets at the surface in the early days. The tunnel is said to have cut a mass of oxidized ore, and the winze below it to have in the bottom sulphide ore carrying \$16 in gold to the ton and 10 per cent of copper.

#### POOL'S MINE

**Location.**—The principal workings of Pool's mine are in sections 3 and 4, T. 5 S., R. 16 E., about  $2\frac{1}{2}$  miles by trail from Christmas station on the Arizona Eastern Railroad. There is another prospect which was worked by some of the people interested in Pool's mine on the east side of Gila River in the NE.  $\frac{1}{4}$  sec. 5, T. 5 S., R. 16 E. This is about a mile up the river from the railroad siding of Finney.

**Property.**—The property at Pool's mine comprises 10 unpatented claims and is owned by the Ash Creek Gold Mining & Milling Co., of Winkelmann. At the place marked "Pool's mine" on Plate I is a shaft, now full of water, equipped with a whim. There is a dump of considerable size at the shaft. The vein is exposed in a series of shallow cuts for a few hundred feet northeast of the shaft, and above these cuts are some shacks. About 1,500 feet to the east is

another inclined shaft. There are reported to be 600 feet of workings on the property.<sup>45</sup> At the prospect on Gila River there are several short tunnels and a shallow shaft. No work appears to have been done at either place for some time.

*Character of the deposits.*—The country rock at Pool's mine is a dark andesite. The deposit exposed in the cuts is a shear zone a few feet wide. The mineralized rock on the shaft dump is andesite in which chlorite, calcite, quartz, pyrite, and chalcopyrite have been introduced, cut by narrow stringers of quartz containing a little pyrite. The deposits were worked for copper and gold, but the ore found does not appear to have been of satisfactory grade. The shaft 1,500 feet farther east is at the contact between andesite and slate, both belonging to the Cretaceous bedded rocks. The slate is at the base of a considerable body of sedimentary beds which extends from the vicinity of the Two Queens mine through this place northward to Deer Creek. In the shaft is a zone of sheeted and brecciated altered andesite about 4 feet wide, with quartz stringers, calcite, and a little pyrite. The zone strikes N. 55° E. and dips steeply to the southeast. There is a small dike of quartz-mica diorite close to this shaft, and another just south of the shaft at the place marked "Pool's mine" on Plate I.

The prospect on Gila River is in a small fault block of Tornado limestone surrounded by Cretaceous andesitic strata and cut by a dike of hornblende porphyry 20 to 30 feet wide, with vertical dip, striking N. 20° E. The limestone dips gently northeast, and the andesitic strata above lie approximately parallel to the limestone beds. At one place on the contact is a mass of quartz-mica diorite cutting both andesite and limestone. The outcrop is so small that it could not be shown on Plate I. The west boundary of the limestone block appears to be a fault, the limestone being on the upthrown side.

On both sides of the hornblende porphyry dike the limestone shows irregular recrystallization and replacement with quartz, fluorite, pyrite, and chalcopyrite. The sulphides are partly oxidized to limonite, hematite, and a small amount of malachite. The porphyry is also in part altered and stained with limonite. The altered limestone exposed is small in amount. Locally the replacement spread out along bedding planes.

#### HOOSIER GROUP

*Location.*—The Hoosier group is on Sulphur Gulch in secs. 4 and 5, T. 5 S., R. 16 E. The principal workings are in the NW.  $\frac{1}{4}$  sec. 4. Sulphur Gulch empties into Gila River about 1,000 feet above the

<sup>45</sup>Weed, W. H., Mines Handbook, vol. 15, p. 219, 1922.

mouth of Ash Creek and half a mile from the railroad siding of Finney.

*Property.*—The Hoosier group comprises about eight unpatented claims owned by J. Miles and C. H. Crozier. About 1,500 feet from the mouth of Sulphur Gulch, in a side gulch, is a shaft on the vein. The same distance up the main gulch and some 50 feet vertically above it on the north side is another shaft, reported to be 48 feet deep, and a short tunnel. There are reported to be two or three shallow shafts on the vein between the two mentioned. In the main gulch a crosscut tunnel is being driven by Mr. Miles to intersect the vein exposed in the 48-foot shaft and the short tunnel. He has a tent house near the mouth of Sulphur Gulch.

*Character of the deposits.*—Most of the rock on this property is andesite of various types, including light-colored hornblende porphyry. At the shaft first mentioned above there is a small mass of Tornado limestone. (See Pl. I.) The block is bounded on the south by a slip that strikes N. 75° E. and dips 80° S. The shaft has been sunk on this slip, the rock along which is mineralized. The limestone block is about 200 feet long in a northwesterly direction and 100 feet wide. The southwest boundary appears also to be a fault with downthrow to the southwest. Beyond the limestone block to the north-west this fault is marked by a zone about 20 feet wide of fault breccia composed of hornblende porphyry, dark andesite, and limestone. The mineralized rock on the dump of the shaft here appears to be limestone almost completely replaced by quartz, chlorite, magnetite, specularite, and pyrite. The vein in the tunnel on the hillside 1,500 feet to the northeast is about 3 feet wide, stands nearly vertical, and strikes N. 65° E. The vein matter is thoroughly oxidized and consists essentially of limonite and quartz. In the lower part of the 48-foot shaft a small amount of pyrite is exposed in gangue consisting largely of chlorite and quartz. A little pyrite is exposed in the andesite in the tunnel below, but in May, 1923, the tunnel was not yet long enough to reach the vein exposed in the tunnel and shaft on the hillside above it.

#### RIEDER & BAILEY GROUP

*Location.*—The Rieder & Bailey group is on the south side of Ash Creek nearly a mile up the winding streamway from its mouth. The principal workings are in the NW.  $\frac{1}{4}$  sec. 9, T. 5 S., R. 16 E.

*Property.*—This group comprises several unpatented claims, and Mr. Rieder has other claims covering much of the W.  $\frac{1}{2}$  sec. 5 and probably extending beyond. There are a number of workings in this area, but none are extensive. In May, 1922, Mr. Rieder was working on the south side of Ash Creek a short distance below the mouth of

## WHAT HAS BEEN DONE

The property of the Ash Creek Mining and Milling Company has done about 600 feet of development work in the nature of shafts and adit tunnels. Upon advice of Prof. W. P. Blake, a mining engineer, an adit tunnel was driven eastward on the south vein for a distance of 300 feet. At 60 feet a cross-cut was run to the north vein, which is seven feet in width. An assay from the ore from this vein showed: Gold \$10.10; copper 1 1/2 per cent. There are about 125 tons of ore on the dump, accumulated from driving the tunnel, that average approximately \$10 per ton in gold and 2 per cent. copper. Besides, there are hundreds of tons blocked out in the tunnel that can be saved at very little expense. The ore in these veins lies in lenses, the ore shoot swelling from a few inches to twelve feet in width.

An incline shaft has been sunk on the south vein to a depth of 60 feet and is in ore its entire length. The vein on the surface where the shaft was started, is two feet wide. Surface ore from this vein assayed but \$4.80 in gold. The vein however, widens out as the shaft proceeds, to five feet in width and assays from ore taken from beneath the surface, run as high as \$42 in gold and 13 per cent. copper. Work was discontinued on this shaft on account of the caving in of the hanging wall and there being no lumber on the ground at the time to timber it up so that the men could work in safety.

A perpendicular shaft was started forty

feet from the south vein, with the view of striking the vein at a depth of 100 feet or thereabout. This shaft has reached the 100-foot level. It is 4 x 6 feet in the clear and timbered all the way down. It will be used as a working shaft in future development. This shaft is equipped with a horse whim, which will be replaced with a gaso-line hoist. At 90 feet this shaft encountered the south vein. From this vein two average samples were taken and assayed as follows:

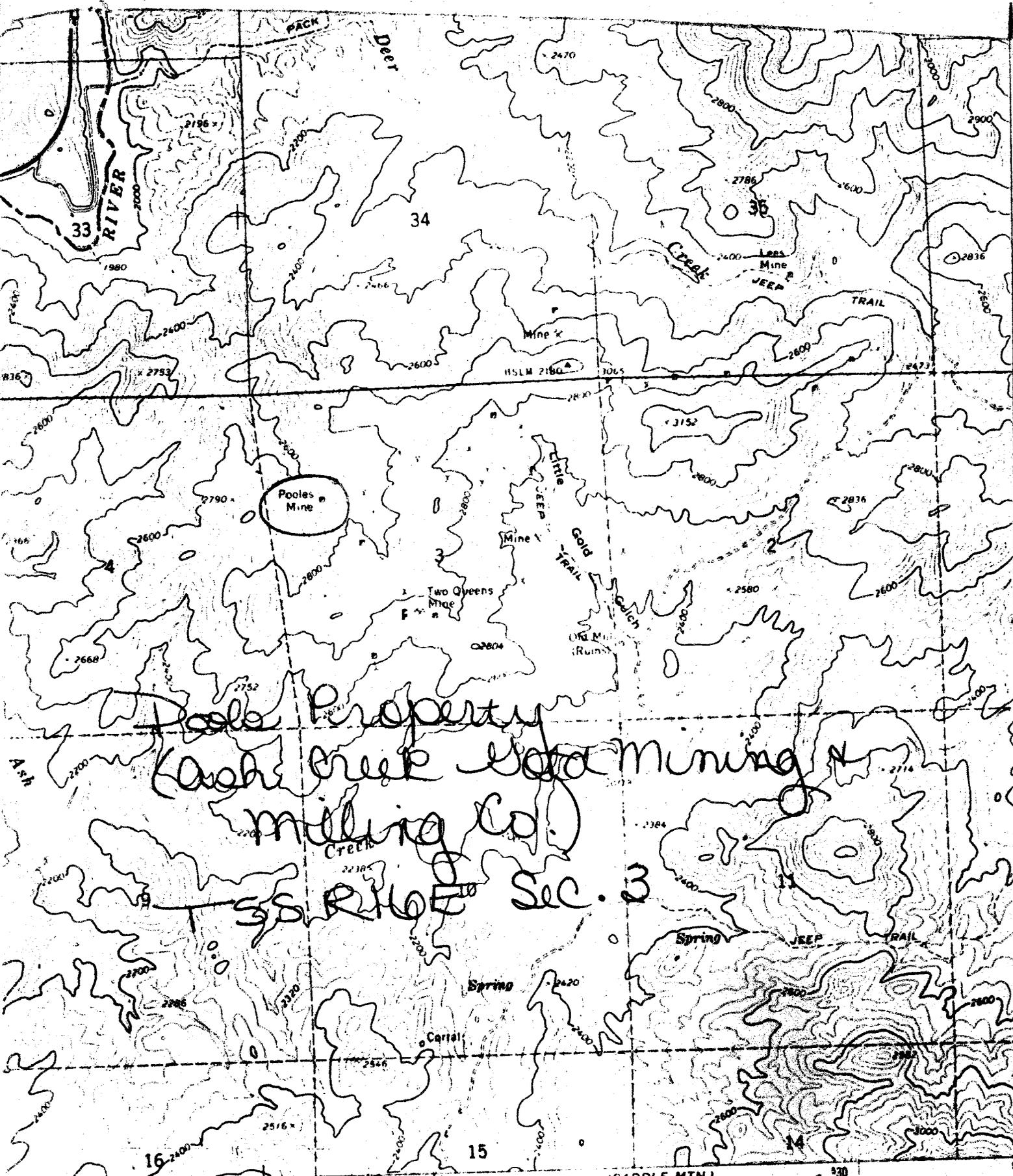
First sample, gold \$16.80; silver, \$1.24; copper, 2 per cent.

Second sample, gold \$20.46; silver, \$1.04; copper 11.6 per cent.

At the depth of 100 feet a cross cut was run to the north vein, which was found to be five feet wide. Sixty feet of drifting was done on this vein and assays of ore from the drift ran from \$4 in gold and 1 1/2 per cent. in copper to \$42 in gold and 14 per cent. copper. There is on the dump about 150 tons of ore from this 100-foot level, averaging \$9 in gold and 2 per cent. copper. There are other shallow shafts and tunnels on the property yielding pay ore and at the present stage of development 50 tons of ore per mill day could be delivered to a reduction plant.

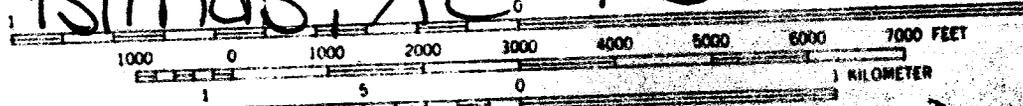
## PROPOSED DEVELOPMENT

It is the purpose of the company to equip the working shaft with a gasoline hoisting engine, continue the perpendicular shaft to a depth of 500 feet, cross-cutting to the veins at each 100-foot level, and then drifting on the veins. By this means the extent



Pools Property  
 Cash Creek Gold Mining &  
 Milling Co.  
 SS R 16 E Sec. 3

Christmas, AZ



CONTOUR INTERVAL 40 FEET  
 DOTTED LINES CROSSING RIVERS REPRESENT 20-FOOT CONTOURS  
 DATUM IS MEAN SEA LEVEL

U.S. GEOLOGICAL SURVEY  
 GEOLOGICAL DIVISION  
 TRACK ELEMENTS PRELIMINARY RECONNAISSANCE REPORT

R.S. CAMP and D.V. SALTON

October 3, 1953

NAME OF PROPERTY: Paola mine

SE-1/4 - 3 - 5 S. - 16 E.

DIRECTION TO PROPERTY: From Winkelman P.O. drive 0.9 miles south on Arizona Highway 77. Turn left (east) on dirt road for 6.9 miles to Old Mill, abandoned millsite. Paola mine is 1.57 mile / (airline) northwest of Old Mill.

REMARKS: See, C.F., 1925, Ore deposits of the Saddle Mountain and Basin areas, Arizona. U. S. Geol. Survey Bull. 771, 72 p.

DEPTH: 75-100-ft shaft (vertical) and smaller workings in the same area.

EQUIPMENT: Reconnaissance for radioactivity with a scintillation counter.

HOST ROCK: Lower and upper shear zone of Laramide age.

MINERALIZATION: Sulfide and silicate ore by quartz-sulfide-sulfate veins.

MINERALIZATION: Pyrite and chalcocite. Gold reported.

MINERALIZATION:

MINERALIZATION: Chlorite, calcite, and quartz. Idiomorphic.

MINERALIZATION:

STRUCTURE: Shear zone strikes N 55° E, dips steeply SE.

EXPOSURE: Traceable for approx. 1000 ft at the surface.

COUNTER TYPE: NICO scintillation counter model 24-31, no. 011

DETECTION RANGE: 0.005-0.008 mR/hr.

SAMPLE NO.	LOC.	TYPE AND DEPTH	DATE	COUNT RATE	REMARKS

No anomalous radioactivity detected.  
 No samples taken.

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11. INFORMATION SUPPLEMENT: None known

12. SERVICE: [Redacted]

[Redacted]

[Redacted]

13. NAME OF PROPERTY: No

NO.	NAME	ADDRESS	PHONE	DATE	REMARKS
1	NEW YORK UNIVERSITY	100 UNIVERSITY ST.	212 997 3000		
2	AMERICAN UNIVERSITY	440 MICHIGAN ST.	202 384 1000		
3	COLUMBIA UNIVERSITY	1190 BROADWAY	212 932 1000		
4	YALE UNIVERSITY	360 COLLEGE ST.	203 432 1000		
5	PRINCETON UNIVERSITY	307 GFD	609 526 1000		
6	UNIVERSITY OF CALIFORNIA	2215 CALIFORNIA BLVD.	415 843 1000		
7	UNIVERSITY OF TEXAS	7875 UNIVERSITY BLVD.	512 835 1000		
8	UNIVERSITY OF MICHIGAN	480 TAPPAN ST.	313 487 1000		
9	UNIVERSITY OF WISCONSIN	480 LINCOLN DR.	608 263 1000		
10	UNIVERSITY OF ILLINOIS	601 S. MATHIAS	312 244 1000		
11	UNIVERSITY OF MINNESOTA	150 S. RYAN	612 552 1000		
12	UNIVERSITY OF NEBRASKA	100 S. 10TH	402 475 1000		
13	UNIVERSITY OF KANSAS	1400 W. 15TH	913 843 1000		
14	UNIVERSITY OF OKLAHOMA	100 S. WALKER	405 521 1000		
15	UNIVERSITY OF ARIZONA	100 S. UNIVERSITY	602 244 1000		
16	UNIVERSITY OF NEW MEXICO	100 S. UNIVERSITY	505 244 1000		
17	UNIVERSITY OF COLORADO	100 S. UNIVERSITY	303 244 1000		
18	UNIVERSITY OF WYOMING	100 S. UNIVERSITY	307 244 1000		
19	UNIVERSITY OF MONTANA	100 S. UNIVERSITY	406 244 1000		
20	UNIVERSITY OF IDAHO	100 S. UNIVERSITY	208 244 1000		
21	UNIVERSITY OF WASHINGTON	100 S. UNIVERSITY	206 244 1000		
22	UNIVERSITY OF OREGON	100 S. UNIVERSITY	503 244 1000		
23	UNIVERSITY OF CALIFORNIA	100 S. UNIVERSITY	415 244 1000		
24	UNIVERSITY OF TEXAS	100 S. UNIVERSITY	512 244 1000		
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50	UNIVERSITY OF NEW MEXICO	100 S. UNIVERSITY	505 244 1000		