NESS STUDY AREA, NEV. AND ORE.

ing well-petrified wood. Most of the middle zone. These occurrences are are theorized to mark the locations of ancient lakes where driftwood colvered with ash (Hodson and Dake, rgin Valley is usually found as casts as.

bearing horizon is on the east side 13 south to a canyon directly east are of nearly 3 mi (5 km). Twenty 2, Kelly No. 1, Skajwm, Northern 1, Pebble, Little Pebble, Angel Nos. Blue Ball, Starfire, Starbright, Becexposure. Mining has been concentant and 2, Northern Light, Pebble, t claims, with most of the precious ight and Royal Peacock claims. In al, weighing 191 carats (1.35 ounces 10,000, was found.

e which includes the Virgin Opal irgin Creek and about 4 mi (6 km) narters. Unlike the east side of the learing horizon is nearly horizontal, onanza) mine shows extensive past mp blocks. A broken opal weighing rgin Opal (Bonanza) mine by Keith

the east side of Virgin Valley, ape Virgin Valley campground. Here corizontal and averages more than otionally large opals, the Roebling Rainbow Ridge mine in 1917 and

ne of the finest in the world, both st, most precious opals were sold into cabochons<sup>1</sup>. Their high water oor stability within the gem. Acrequiring a year has been found in 5 percent without damaging the

f claims in the northern part of stone. Permission for the Bureau USGS BULLETIN 1538D (316)

ECONOMIC APPRAISAL

97

of Mines to examine the claims was not received. The reddish-brown, tuffaceous sandstone is relatively unfractured, splits easily along bedding planes, and is as much as 20 ft (6 m) thick (Wendell, 1970). Beyond the claims' boundaries, the sandstone unit thins rapidly to a thickness of 2.5 ft (0.8 mm) and becomes a poor-quality ornamental stone. However, resources in an area adjacent to the claims are estimated to be more than 250,000 tons (227,000 t).

Dimension stone is also found 2 mi (3 km) southeast of the Lemac group. These beds are thinner than those in the vicinity of the Lemac group and show local folding.

Diatomaceous earth occurs in several places in the district. Beds are as much as 8.0 ft (2.4 m) thick on the April Fool claim group and 7.0 ft (2.1 m) thick near the Rainbow Ridge mine. A sample analyzed by Johns-Manville in 1935 showed that the diatoms are of wrong types for use as filter aids (Johns-Manville, written commun., 1975).

Since 1950, 720 uranium claims have been located in the Virgin Valley district. They are concentrated in two areas; one, referred to as the McKenney Camp uranium claims, is in rhyolite and has no value as a uranium resource. The second, the Virgin Valley uranium claims, covers an area about 0.25 mi (0.4 km) wide that extends north from the Virgin Valley Ranch for approximately 1 mi (1.6 km). Studies show this to be a large low-grade uranium resource.

## LONE PINE DISTRICT

The Lone Pine district occupies the southern half of the Refuge and extends beyond the southern boundary into Bald Mountain Canyon (fig. 27). Elevations range from 6,000 ft (1830 m) on the western and eastern study-area boundaries to 7,191 ft (2192 m) at the summit of Yellow Peak. State Highway 34A, from Cedarville to Denio, skirts the district's north side.

The country rock is principally andesite and associated tuffs, with most of the latter altered to a bentonitic clay. Gold and silver prospecting began in 1897 and continued through 1909. The district has had no reported gold or silver production; however, studies indicate it has potential. In 1929 mercury was discovered; soon thereafter, the Antelope claims were located south of the Refuge boundary. The Antelope mine produced a small amount of mercury, but assays showed the ore is low grade. A total of 353 claims were located in the district, 80 of which are south of the study-area boundary.

In 1954 and 1955 a total of 142 uranium claims were located; however, little activity followed, and the district is now idle.

E.T. TUCHER F3 JOHNSON MD CONYAC