



In 1905-1907, the Pacific Coast Borax Company constructed the Tonopah & Tidewater Railroad to transport borax from Death Valley, California, to coastal markets, and to reach the booming gold fields around Tonopah, Nevada. The T&T was constructed northward from the (SP-built) AT&SF mainline at Ludlow, California, to the town of Gold Center, Nevada, where it connected with the Bullfrog Goldfield Railroad (1907). The T&T accessed Death Valley borax via a 7-mile branch, called the Ryan Branch, also built in 1907, which ran from the T&T mainline at Death Valley Junction west to the Lila C Mine with the station named "Ryan." The T&T reached neither Tonopah nor ocean "tidewater." From 1908 to 1914, the Bullfrog Goldfield Railroad was combined into the T&T, and then combined again in 1918 after the demise of the Las Vegas & Tonopah Railroad (1907).

In 1914, the Death Valley Railroad built a narrow gauge line from a junction with the standard-gauge T&T Ryan Branch (1907) at a location called Horton, 4 miles southwest of Death Valley Junction, westward about 17 miles through this location near Travertine Point to the borax mine at Devar (an acronym for DEath VALley Railroad), later renamed "Ryan" (the second "Ryan"). The narrow gauge track and equipment used in building the DV (1914n) was salvaged from the recently-abandoned Borate & Daggett Railroad (1897n). The 4 miles of the T&T Ryan Branch (1907) from Death Valley Junction to Horton had dual gauge tracks (three rails) so DV narrow gauge trains could run all the way to Death Valley Junction. One narrow gauge train per day brought food and water to the workers at Ryan and brought ore back late in the afternoon.

After better deposits of borax were discovered at Boron in southern California in 1927, the DV tried tourist operations by bringing in a Brill railcar to transport tourists to the old mines. That didn't work; the DV (1914n) was abandoned in 1931 (including this location) and the equipment, track, and rolling stock were used to construct the United States Potash Railroad near Loving, New Mexico (east of map area). After a flood in 1933, Ludlow was abandoned and T&T operations ran north from Crucero, where the T&T crossed the San Pedro, Los Angeles & Salt Lake Railroad (1905) (by then the LA&SL). By 1940 the entire line was out of service and the T&T was torn up in 1942.

Westward view of the grade of the DV (1914n), 8 rail miles west of its starting point on the T&T Ryan Branch at Horton and 12 rail miles west of Death Valley Junction on the T&T mainline. The end-of-track at Ryan is just over the topographically gentle Greenwater Mountains; the gentle topography is the surface of a million-year-old lava flow, and the two conical peaks in the right distance are associated cinder cones. Beyond the Greenwater Mountains, the topography drops off precipitously to Death Valley and its salt playa at an elevation of 282 feet below sea level. The precipitous drop off is the scarp of a normal fault, with east-side-up, along the east side of Death Valley. The snowcapped peak in the background, on the west side of Death Valley, is 11,043-foot Telescope Peak in the Panamint Range. Death Valley's spectacular topography is due to it being the most tectonically active part of the Basin and Range geologic province, which formed the Great Basin hydrologic province of internal drainage.



Eastward view of the grade of the DV (1914n), 300 feet east of the previous location. The fill grade in the previous photo has turned to a cut grade to negotiate the mountain promontory visible to the right.



Northward view of the same fill grade for the DV as in the first photo. The concrete slab in the foreground is the largest of many old foundations at this location. I do not know what these foundations were or if they had anything to do with the railroad. The layered rock in the distance is half-billion-year-old limestone deposited at what was then the continental margin of North America.



Southward view of the grade of the DV (1914n), 2 miles west of the previous location, where the alignment leaves the alluvial plain and starts climbing the Greenwater Mountains. The grade is hard to see. It is most visible on the far right, where the black lava talus on the steep slope meets the flat alluvium.



Eastward view of Ryan (the second "Ryan," formerly "Devar," at the DV (1914n) end-of-track, 17 rail miles west of its starting point on the T&T Ryan Branch at Horton and 21 rail miles west of Death Valley Junction on the T&T mainline. The DV alignment enters the cluster of buildings (Ryan) from the left (north) following the elevation contours along the steep slope. The location of the previous photo is on the other side of the lava-capped promontory, and the alignment has made a left turn around the promontory to enter Ryan from the north. The sediments below the black lava are lake deposits, which contain the borax.



Closer eastward view of Ryan. The DV cut grade is visible to the left of the buildings. According to the Death Valley Conservancy "Ryan was a luxurious mining camp by any standards of the day," with electricity, steam heat, and refrigeration; it also boasted a school, hospital, post office, recreation hall/church, and general store. After borax production stopped in 1928, Pacific Coast Borax converted the miners' lodgings into tourist accommodations and gave tourists visiting Death Valley trips on the baby gauge rail line into the mine. The Death Valley View Hotel operated full time from 1927 until 1930, the year the DV ceased operations. From 1930 through the 1950's, the hotel was used as overflow accommodations for the Furnace Creek Ranch and Inn. In 2013, Rio Tinto Borax Corporation (successor to Pacific Coast Borax) donated the property to the Death Valley Conservancy.



Several levels of cut-grade road follow topographic contours along the side of the mountain for several miles south of Ryan to access numerous borax diggings. I do not know if these were temporary railroad branch lines or rubber tire truck roads.



Closer view of cut-grade roads and diggings south of Ryan.





After the DV (1914n) was completed, the railroad bought two 2-8-0 steam locomotives from the Baldwin Locomotive Works. After the railroad ceased operations in 1931, the United States Potash Company bought the equipment, including both locomotives, for its narrow gauge line located near Loving, New Mexico (east of map area). After the United States Potash Railroad turned over their operations to diesel locomotives in the 1950's, the two ex-Death Valley Railroad steam engines were preserved. The No. 1 was sent to Carlsbad, New Mexico (east of map area) and put on display. The No. 2 (this locomotive) was bought by Death Valley National Park and is currently on display at this location, which is the Borax Museum at Furnace Creek, 14 miles northwest of the DV (1914n) end of track at the second Ryan (previous photo).





The older lettering must date from the days of operation of the DV and the newer lettering was probably added by the Park Service.