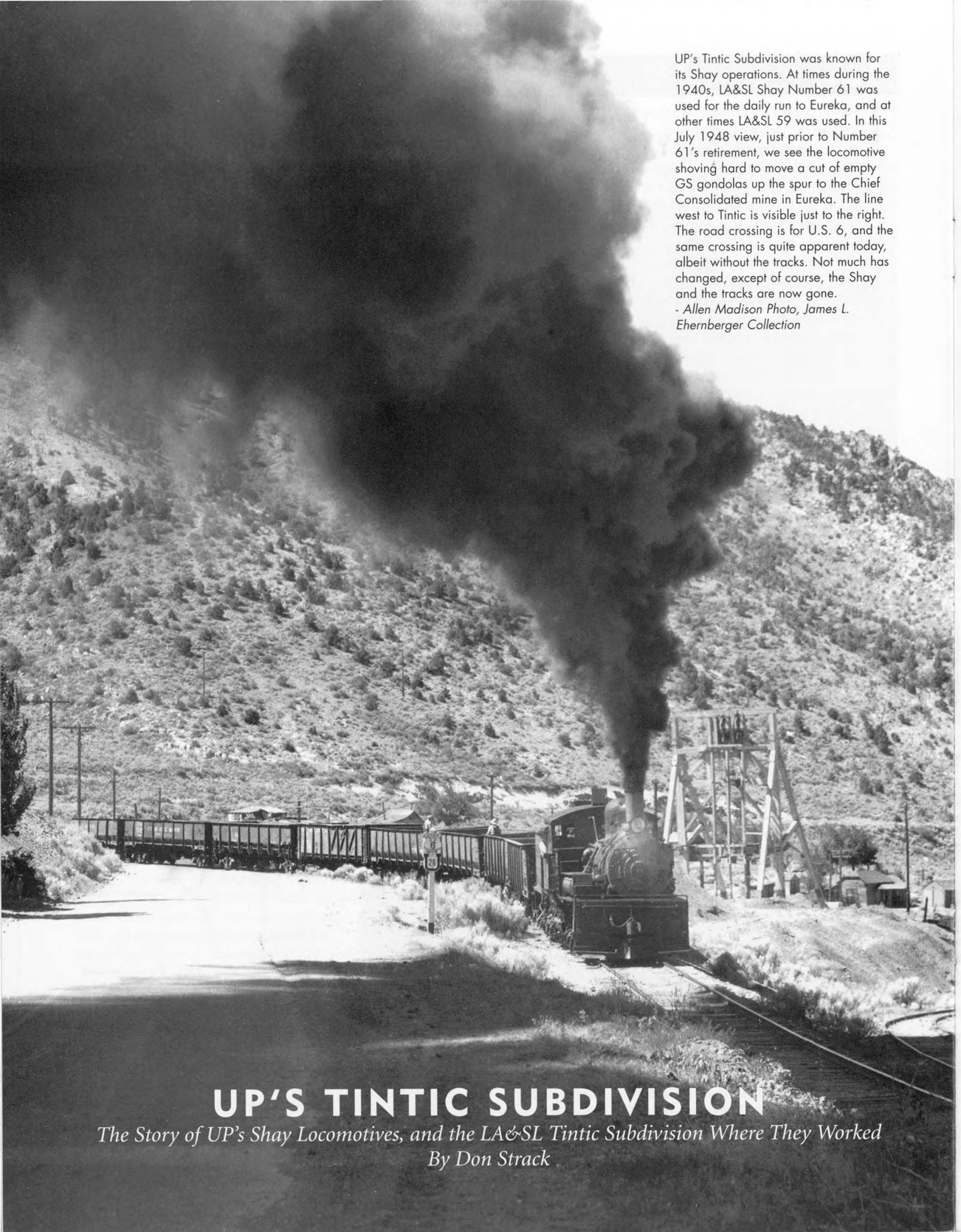


UP's Tintic Subdivision was known for its Shay operations. At times during the 1940s, LA&SL Shay Number 61 was used for the daily run to Eureka, and at other times LA&SL 59 was used. In this July 1948 view, just prior to Number 61's retirement, we see the locomotive shoving hard to move a cut of empty GS gondolas up the spur to the Chief Consolidated mine in Eureka. The line west to Tintic is visible just to the right. The road crossing is for U.S. 6, and the same crossing is quite apparent today, albeit without the tracks. Not much has changed, except of course, the Shay and the tracks are now gone.
- Allen Madison Photo, James L. Ehernberger Collection

UP'S TINTIC SUBDIVISION

The Story of UP's Shay Locomotives, and the LA&SL Tintic Subdivision Where They Worked

By Don Strack

When talking about UP's Tintic branches, where the road ran its Shay locomotives, the official end may have come in late 1978, but a fan of Union Pacific's Shay locomotives would rightly say that the end came in late 1948, when the last Shay was removed from service.

UP's Shay locomotives ran on the railroad's Tintic branches in central Utah from 1896 when the first Shay arrived. That first one was joined by a second Shay in 1902, and by a third in 1907. Like many of the companies that operated Shay locomotives, UP's Shays were purchased specifically to operate over trackage that had severe curves and steep grades; in the case of the Tintic branches, the curves were extremely tight, at 30 degrees (193 feet radius; 26 inches in HO scale), and the grades were as steep as 6 percent (6 feet of rise in 100 feet of run). What made the curves so tight, and the grades so steep? The simple answer is: mines and mining.

The Tintic Mining District in central Utah was the home of some of the richest silver mines in the West. The first silver ore was discovered in 1869 by George Rust, a cowboy herding cattle in Ruby Hollow, three miles south of what would later be the town of Eureka. Word soon spread and many other mines were very soon being developed. Those early miners organized the Tintic Mining District in December 1869, taking its name from the large open valley to the west. The valley got its name in 1856, from a local Ute chief who died from wounds received during the brief "Tintic War," also in 1856. The first successful Tintic mines came in the early months of 1870, and included mines all along the western slopes of the East Tintic Mountains, from north to south, mines in Eureka, Mammoth Hollow, Ruby Hollow, and Diamond Gulch. Eureka came into being as the area surrounding the Eureka Hill mine was developed. Quoting D&RGW's 1938 summary of branchlines, "This camp has been a steady producer and, even during the years when silver prices were low, production has been relatively continuous at some of the properties. Notable among producing mines of this district are the Mammoth, Grand Central, Eagle & Blue Bell, Chief Consolidated, Bullion, Beck, and others."

The Mammoth mine was organized in February 1870 by a group of miners that included Charles Crismon. Supposedly one of that original group of prospectors stated "Boys, she's a mammoth strike! We've got ourselves a mammoth mine." Within a couple years Crismon became the majority owner and in 1873, he exchanged his interest in the mine to Samuel and William McIntyre for cattle that the McIntyre brothers had herded into the Tintic Valley from Texas. One of the first mills in the district, and later a small smelter, was built in 1873 by the Crismon-Mammoth Company out in the valley near the McIntyre's Tintic Ranch, seven miles southwest of the Mammoth mine. The Crismon mill soon became known simply as the "Tintic Mill." The location was chosen to put the mill on land already owned by the McIntyres, and to allow the mill to be near a good source of water. Fuel was another matter, and its high cost would soon be a deciding factor in the mill's closure. Much needed cheap transportation was to come in the form of the projected, but never built, Lehi & Tintic Railroad of 1872. The promise of a railroad was enough to spur the building of this and at least two other early mills. Before the promised low costs of a railroad, and before mills and smelters were built locally, only the very richest mines could afford transportation. These early mines were forced to ship their ore by wagon 60 miles north to the south shore of Great Salt Lake for movement by boat across the lake 75 miles to Corinne on the north shore, and shipment on the transcontinental railroad to smelters in San Francisco, Baltimore, and Wales in Great Britain.

By the time of the 1870 creation of the Tintic Mining District, the transcontinental railroad had just been completed. Its extension south from Ogden to Salt Lake City, the Utah Central Railroad, went into service in January 1870. Like several other pioneering railroads in Utah in the 1870s, the Utah Central was organized and built by the leaders and members of The Church of Jesus Christ of Latter-Day Saints, also known as the Mormons. These railroads soon became known as the "Mormon Roads," including the Utah Southern Railroad, organized in January 1871 to build south from Salt Lake City to the southern communities. Construction of the Utah Southern started in May 1871, amid speculation that in addition to serving the southern farming communities, it was also headed for the Tintic Mining District. Construction progressed throughout 1871 and 1872, until September 1872 when the road reached Lehi, a community at the north end of Utah Valley, 25 miles south of Salt Lake City. With the Utah Southern completed as far as Lehi, the previously mentioned Lehi & Tintic Railroad was organized in October 1872 to extend the line 50 miles to reach Tintic; but like several other Utah railroads of the era, the Lehi & Tintic Railroad was never built due to lack of investors.

Financial doldrums for the Mormon roads followed shortly thereafter, and Union Pacific came to the rescue, buying bonds in the troubled roads in exchange for rail and equipment that was badly needed to complete construction and

A Union Pacific map from the early 1880s shows the Utah Southern Railroad Extension to Frisco and the Salt Lake & Western line from Lehi Jct. Tintic and Silver City.
-Don Strack Collection

get the trains running. A narrow gauge extension to Tintic was planned as early as 1874, but all expansion plans were put on hold because the Union Pacific officers saw a richer prize in the Horn Silver mine at Frisco, 170 miles further south of Tintic, near Milford. Construction toward Frisco progressed in fits and starts, including a whole new UP-controlled company known as the Utah Southern Railroad Extension in 1879. The Horn Silver Mine was finally reached in June 1880, but went bust in 1885, after producing 14,000 tons of silver ore per year, all of which was hauled north over the Utah Southern. In the meantime, UP consolidated its interests in the standard gauge roads in Utah as a new Utah Central Railway in 1881 that included the old Utah Central Railroad, the Utah Southern Railroad, and the Utah Southern Railroad Extension.

Boom times for the Horn Silver mine made the mines of the Tintic district more attractive, and the extension to Tintic was again looked at. In May 1881, UP interests organized the Salt Lake & Western Railway, with a proposed route the same as the earlier Lehi & Tintic line, with the added destination being a route to meet another road organized in Nevada with the same name. Union Pacific and Central Pacific were feuding at the time, and the combined Salt Lake & Western roads were part of Union Pacific's plan to bypass its Central Pacific connection at Ogden and give UP direct access to California.

Construction of the Salt Lake & Western began in May 1881 at Lehi Junction (now called Cutler), a couple miles north of Lehi on Utah Southern's mainline. Construction progressed and in June 1882 the road reached what would remain its southern terminal, at the Crismon-Mammoth silver-ore processing mill and smelter (known variously as both Tintic Mill and Tintic Mills), 53 miles south and west of Lehi Junction. The newspaper account of the event said that on June 24, 1882, the Salt Lake & Western was completed to "the Mammoth smelters, at Tintic." Grading was completed for at least another four miles farther south, past the site of another mill and smelter at what was then known as Roseville, about a mile south of the Tintic mill. But by 1882, the Roseville smelter was shut down, as were the mines in Diamond Gulch to the east that had furnished so much ore. Freight operations for Salt Lake & Western began on June 10, 1882, and passenger operations began on June 25th, but rail was never laid beyond Tintic, where the Tintic mill was located.

A trace of the Salt Lake & Western's route starts at the northern end at Lehi Junction (Cutler), where the line headed west, crossing the Jordan River (at the south end of today's Thanksgiving Point golf course) then southwest over Cedar Pass and across Cedar Valley to Fairfield. The new railroad then crossed over Five Mile Pass and headed south along the eastern edge of Rush Valley, through Topliff, over the high point at Boulter Summit, and into the Tintic Valley to the site of the Tintic mill and smelter. The site of the mill was out in the valley along what is today Tanner Creek, west and south of Eureka and Mammoth, and a mile and a half north of McIntyre Station on today's UP former LA&SL mainline.

Although the Salt Lake & Western was organized as a separate company, testimony by the road's president, W. W. Riter, before the Pacific Railway Commission in 1887, shows that Union Pacific furnished all of the cash to pay for the grading and ties, and also furnished all of the rail and other track materials needed for construction of the road. Initially, the road was headed for California, but to gain the traffic of the growing mines in the Tintic district, in late 1882 Salt Lake & Western completed a 3.78 mile-long (3.94 miles with side tracks and spurs) branch eastward to Silver City. This branch connected with the SL&W mainline at a newly built wye that was named Ironton, shown as Diamond City on the 1895 USGS map of the area. In his testimony, Riter stated that the branch to Silver City was constructed using iron rail taken up from the original Utah Central of 1870 when that line was relaid with steel rail. The line received a new locomotive from the Taunton Works in New Jersey, on November 15, 1882. In the June 1885 system roster of Union Pacific equipment, Salt Lake & Western is shown as having a single 4-6-0 locomotive, and one caboose.

Those first six months of operations in 1882 netted the road over $39,800, and the following year of 1883 brought in over $49,400 ($884,500 in 2002 dollars). Needless to say, Union Pacific was very happy with its investment. The tonnage hauled out of Tintic in 1883 totaled 7,650 tons of ore via the Salt Lake & Western railroad. During 1884, the district shipped 48,914 tons of ore via the Salt Lake & Western, including 22,943 tons shipped to local smelters., and in 1890, the district shipped about 68,000 tons, or about 10 carloads per day of very rich galena ore, which is a combination of silver, gold, lead, and copper. The increase in traffic brought a second locomotive in mid February 1883, on loan from UP. In April 1889, construction began on a 3.24 mile branch into Eureka, from a point on the Silver City Branch. The Eureka Branch was completed on September 9th, after the formation of the new Oregon Short Line & Utah Northern.

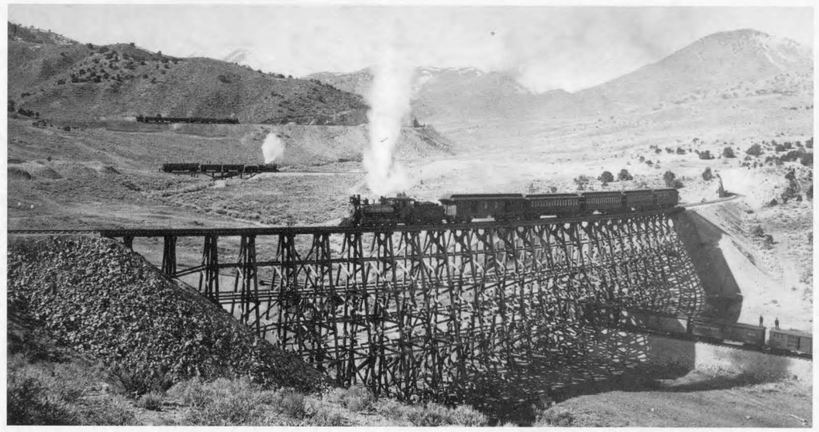
On August 1, 1889, Salt Lake & Western was included in the roll-up of UP-controlled roads in Utah and Idaho that formed the new Oregon Short Line & Utah Northern Railway. The line between Lehi Junction and Tintic became the OSL&UN's Tintic Branch, with service being provided to the Tintic mill, and by the branch from Ironton, to the mines themselves at Eureka and Silver City.

In his memoirs of his years of railroading, *My Life on Mountain Railroads,* William John Gilbert Gould fills in many details of the early operations of the Tintic branches. His father was the section boss in the district from 1895 to about 1899. Included in his memoir was that as of 1895, all that remained at Ironton, out in the Tintic Valley, was the wye to turn the locomotives, the section house where his family lived, and a corral and loading chute to load cattle and wild horses. The south leg of the wye at Ironton continued on south to the site of the old Tintic mill, which had closed just a couple years before. The line to Tintic by this time was used mostly to load livestock at the McIntyre Ranch, the largest cattle raising operation in the territory. The daily train from Salt Lake City would arrive at Ironton and leave its caboose at the wye, and proceed into

Oregon Short Line & Utah Northern completed its Eureka Branch in September 1889, which ended in downtown Eureka. This view is looking east as an OSL&UN train waits to depart from the Eureka depot. The depot building was moved after 1974 and is today the home of the Tintic Historical Society. - *Tintic Historical Society Collection*

the mining camps to gather loads and distribute empties. Gould mentions the New East Tintic Railway, completed in 1896, and its Shay locomotive, only in passing.

Mine development in the Tintic district slowed during the mid 1880s as the two largest mining companies sued each other over property rights, but settlement of the suit in 1889 brought new boom times to the district. OSL&UN had the Tintic district all to itself until early 1892, when the standard gauge Tintic Range Railway was completed to Eureka from the east. The new line was organized in May 1891 by Rio Grande Western interests to tap into the mineral traffic coming out of Tintic. RGW converted all of its lines in Utah from narrow gauge to standard gauge by late 1890, and wanted to solidify its independence by directly competing with Union Pacific, and its local subsidiaries. The new 39-mile RGW line to Tintic connected with RGW's mainline south of Provo at Springville, and was built across the south end of the Utah Valley

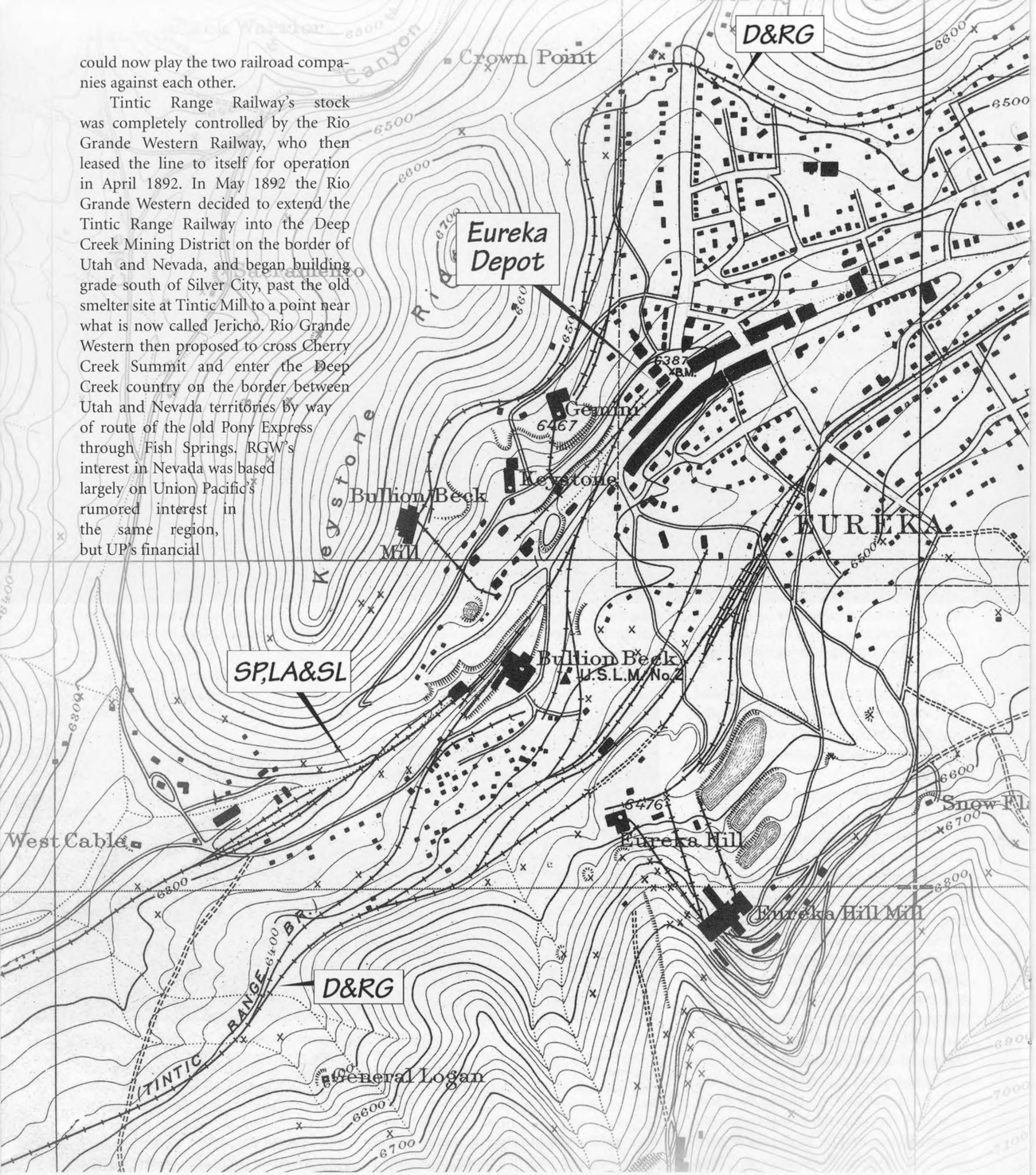


Completed in 1892 as a subsidiary of the larger Rio Grande Western, the Tintic Range Railway's "Double Circle Loop" in Pinyon Canyon just east of Eureka, soon became a tourist attraction. It was one of the few locations in the West where a railroad line completely crossed over itself. The loop was replaced by a steeper line in 1940 after a range fire damaged the trestle. - *Utah State Historical Society Collection*

to Eureka, crossing over a summit of 6,567 feet just east of Eureka. The new line reached Eureka first, then within a year, continued another four miles to Mammoth and Silver City, south and west around the slopes of Eureka Peak that overshadowed the entire district. With new competition in transportation, even the marginal mines, which were most of the mines in the district,

could now play the two railroad companies against each other.

Tintic Range Railway's stock was completely controlled by the Rio Grande Western Railway, who then leased the line to itself for operation in April 1892. In May 1892 the Rio Grande Western decided to extend the Tintic Range Railway into the Deep Creek Mining District on the border of Utah and Nevada, and began building grade south of Silver City, past the old smelter site at Tintic Mill to a point near what is now called Jericho. Rio Grande Western then proposed to cross Cherry Creek Summit and enter the Deep Creek country on the border between Utah and Nevada territories by way of route of the old Pony Express through Fish Springs. RGW's interest in Nevada was based largely on Union Pacific's rumored interest in the same region, but UP's financial



A 1905 USGS map shows the relationship between the SP,LA&SL (UP) line and the D&RG Tintic Range Railway at Eureka. UP-controlled tracks terminated just below the Gemini Mine in mid-town Eureka. *-Don Strack Collection*

problems in 1893 brought an end to any expansion plans. RGW also lost interest, and nothing more was done other than the partial completion of the grade in spots along the proposed route.

As the silver boom of 1891-1892 reached its zenith, mines in the district began expanding their operations. In addition to the mines at Eureka, Mammoth, and Silver City, one of the more promising strikes was the Northern Spy Mine. To reach this mine, OSL&UN built a new branch, three miles long, in August 1891, south from Silver City and up (east) into Ruby Hollow, the site of the original 1869 discovery of silver ore in the Tintic district. The Northern Spy Mine Branch (also referred to as the Northern Spy Extension) was completed in February 1892.

After RGW moved into UP's territory at Silver City in 1893, UP's OSL&UN returned the favor with expansion plans to serve Mammoth Mining Co.'s new mill at the mouth of Mammoth Hollow, at Robinson. OSL&UN's expansion to Mammoth was the 1.82-mile Mammoth Branch, and it connected with the Eureka Branch at a new location called Mammoth Junction. Construction was begun during September 1893, and completed in December. OSLUN had to cross RGW's Eureka-to-Silver City line a mile from the new Robinson mill, but permission to do so ended in a compromise that the trackage beyond the crossing, to the mill itself, a bit less than a mile, would be jointly owned and operated by both OSL&UN and RGW.

This fierce competition between the two railroads wherever they came close was typical of the wild expansion years of the early 1890s throughout the West. In the case of Tintic, it was merely on the way to someplace else, namely California. Most of the railroad expansion into and around Tintic was done either because the other road was already there, or to prevent the other road from building.

Research has not found whether the new track at Mammoth was truly a case of two competitors working together, or if it was a case of RGW not allowing OSL&UN to cross its line to gain access to Mammoth unless the new line was jointly owned. In any case, by late 1893, the Robinson mill was soon served not by one railroad, but by two railroads.

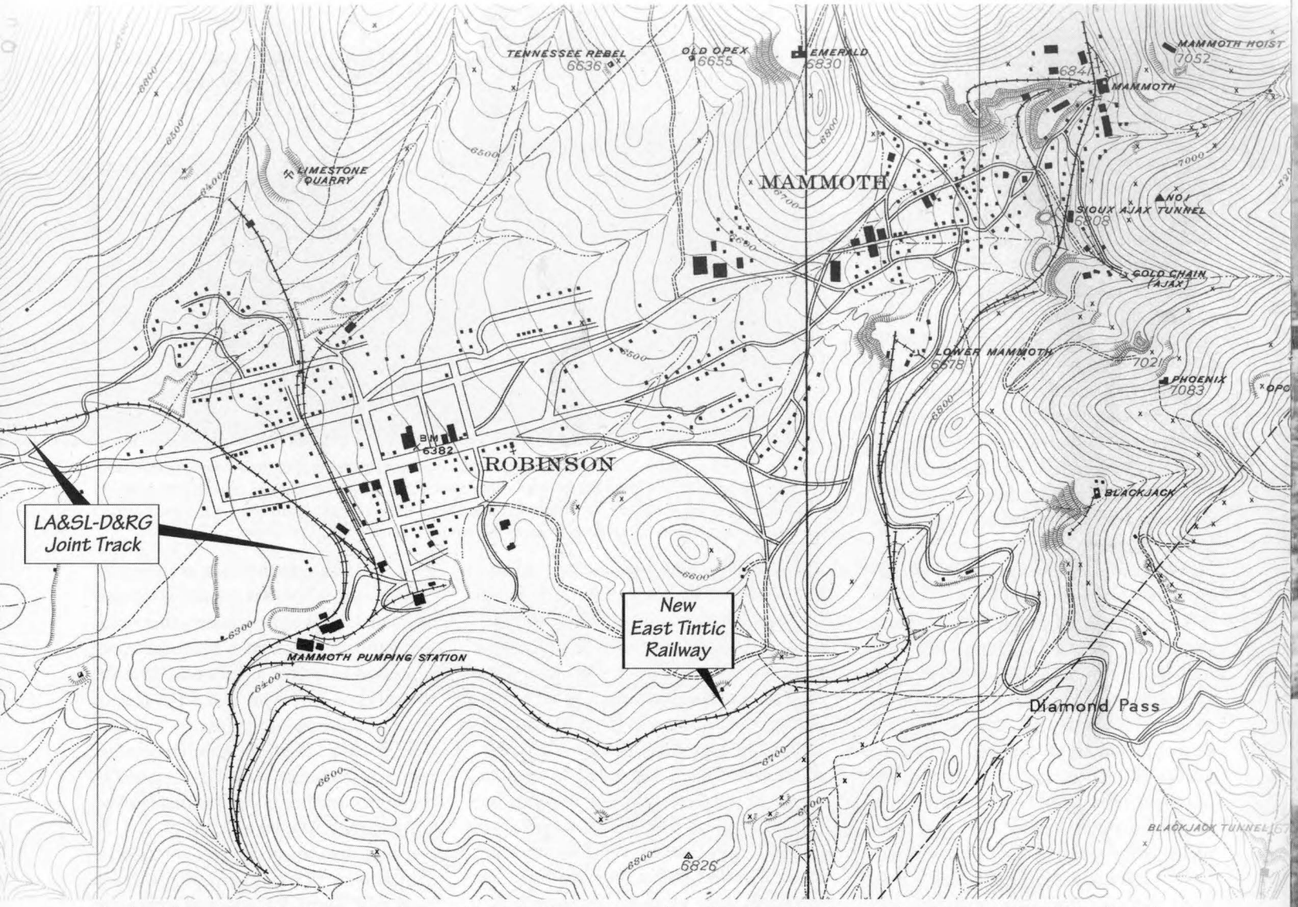
By 1907, the San Pedro, Los Angeles & Salt Lake had bought a third Shay locomotive to operate the Tintic branches. This large 80-ton locomotive was put to work immediately, and is seen here in 1909 easing a cut of loaded cars past the Bullion Beck mill in Eureka, down to the Eureka Branch's mainline connection at Tintic, three miles to the west. - *Palmer Photo, Don Strack Collection*

The Robinson mill was situated on the hill side above the town of Robinson, but the railroads chose to use the Mammoth name on their joint depot. The mill, completed in 1893, was very soon joined by the Farrel mill, which was also served as part of the joint tracks from Mammoth station. In May 1896, the joint trackage at Mammoth was expanded to include a spur to the Grand Central ore bins on the north side of Mammoth Hollow. The Grand Central ore bins were connected to the Grand Central mine high up on the north slope by an aerial tramway.

Unlike the Grand Central and its aerial tramway, the owners of the Mammoth mine were using freight wagons to get the ore down from their mine to the company's new mill, a distance of two miles as the crow flies. The steady stream of wagons moving along the steep road between the mine at Upper Mammoth, and the new mill at Robinson (Mammoth on the railroads), was a cost that the company wanted to avoid. To reduce its costs, the company approached the railroads about building a branch to the mine. Although the Mammoth mine's prospects were bright, both railroads hesitated at building such a steep and difficult line, saying that the mining company would have to pay a large share of the added costs for such a difficult line. To avoid these costs, in January 1894, the mine owners (the McIntyre brothers) organized the East Tintic Railway to build a 2½ mile railroad between a connection with the joint trackage at Mammoth (Robinson), where their mill was, and the mine at the top of Mammoth Hollow. The plans for the new railroad laid dormant after other mining companies along the proposed route expressed an interest in using the new line to haul their ores to the OSL&UN line for eventual movement of their own ores to the Salt Lake Valley smelters. These other mining companies were each located in the upper reaches of Mammoth Hollow, and each had its own mill.

Negotiations progressed, and a new common-carrier company to be called New East Tintic Railway was organized in May 1896. The leading person in the New East Tintic's organization was James Cunningham who had also been involved as the engineering and railroad interest in the earlier East Tintic Railway. The McIntyre brothers backed away completely from the new company's organization, a decision they would later regret. Earlier, in January 1891, the McIntyres and Cunningham had organized the Tintic Railway, to build a line from Provo to the Tintic district to compete with OSL&UN, and its high rates to move the mine's ores over the former Salt Lake & Western. The plans for the Tintic Railway were abandoned because in May 1891 the Rio Grande Western organized its Tintic Range Railway and completed the line between Springville and Silver City in early 1892.

Construction of the New East Tintic Railway was completed between Mammoth, past the Robinson mill, to the Mammoth mine during September 1896,



This detail from a 1913 USGS quadrangle map of the Tintic Mining District shows the relationship between the joint-SP,LA&SL-D&RG tracks, Robinson, Mammoth and the New East Tintic Railway. *-Don Strack Collection*

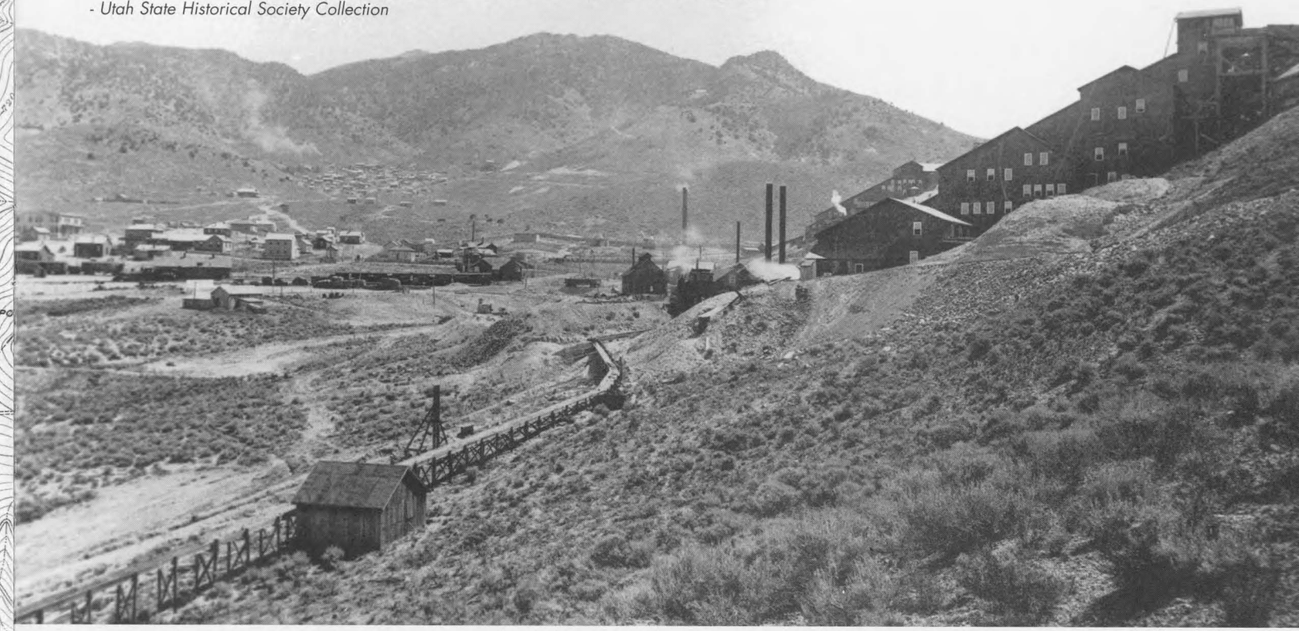
The Mammoth depot was a joint station between the OSL&UN and the Rio Grande Western. The joint trackage was completed in 1893. The depot itself served the town until it burned in 1942. Visible on the hillside to the right is the steep and curving line of the New East Tintic Ry. as it climbs from the Mammoth depot up to the Mammoth mine. - *Tintic Historical Society Collection*

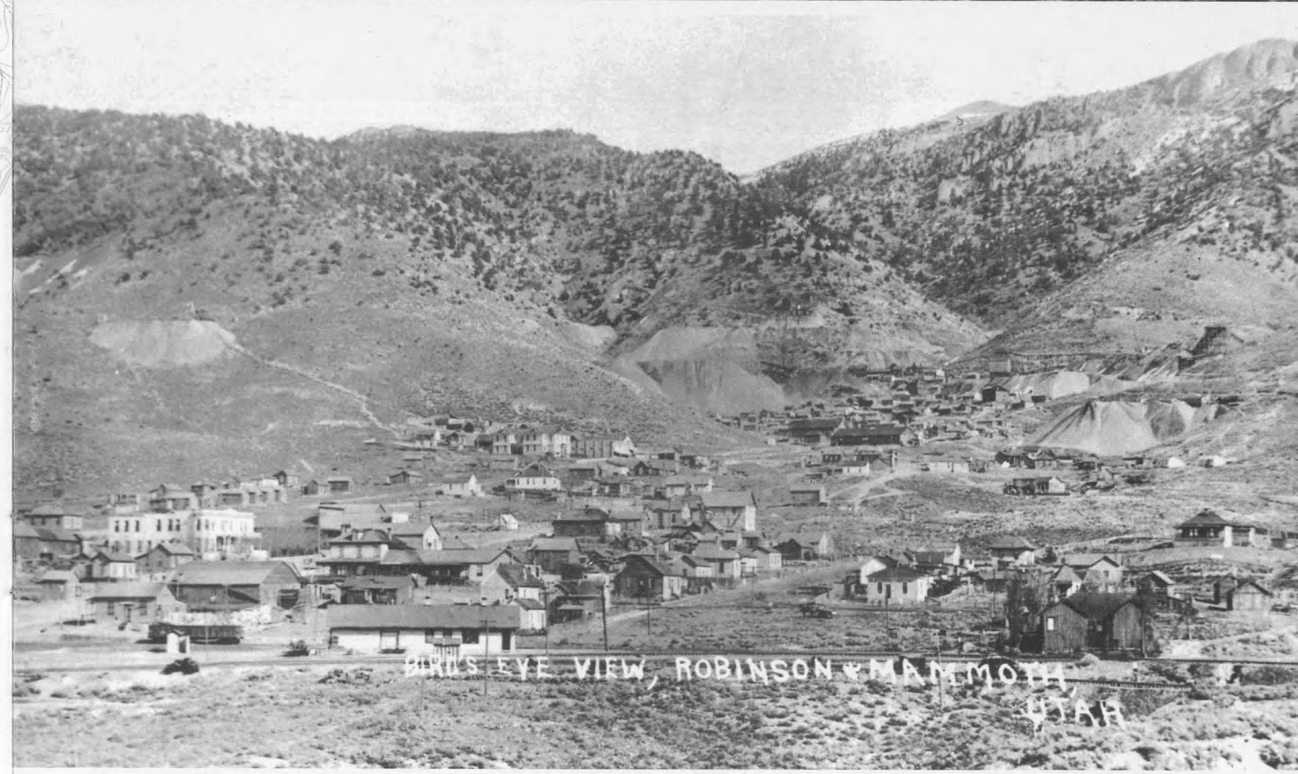
a distance of 1.99 miles, and a total of 2.5 miles including spurs and sidings; all of it uphill. The new railroad used a switch-back track, 235 feet long, and grades as high as 6 percent and curves as tight as 30 degrees. Operations began during the second week of September 1896.

Earlier while negotiations were under way with the other mine owners, and in preparation for his new railroad, Cunningham ordered a 32-ton, 2-truck Shay locomotive in August 1895 from the Lima Locomotive Works. The new locomotive was shipped on June 6, 1896, and arrived at Mammoth soon after. Given road number 10, and named "Alie," known locally as Little Alice, for Cunningham's then-11 year old daughter Alice. The new railroad's new locomotive would be its sole motive power for another six years.

Less than a year later, OSL&UN was

This view shows the Robinson mill at the right, and the Mammoth mine in the far distance.
- *Utah State Historical Society Collection*





The Mammoth depot is seen in this view just above the word "Bird's" in the inscription. The Mammoth mine and its large waste dumps can be seen high on the mountain side, and a bit to the right, above the depot. The New East Tintic Railway connected the Mammoth mine and the joint station at Mammoth. - *Tintic Historical Society Collection*

From the Robinson mill, this view shows the joint Mammoth depot at left middle. The New East Tintic's lower line curved away from the depot and began its 6 percent climb to the Mammoth mine seen in the distance at upper right. The Farrel mill is just out of the photo to the right. - *Utah State Historical Society Collection*

Ore for the Robinson mill, coming from the Mammoth mine, arrived at the top of the mill by way of the New East Tintic line, whose Shay is silhouetted here in this undated photo. The mill closed in 1903, and the trestle spur was removed at the same time. - *Utah State Historical Society Collection*

reorganized as the Oregon Short Line Railroad. OSL&UN had been in receivership since 1893, along with its Union Pacific parent, and on February 23, 1897, the new OSL took over the deed and ownership of all former OSL&UN lines, with formal operations beginning on March 17, 1897. Oregon Short Line Railroad was very soon under the control of E. H. Harriman, who wanted to assure feeder traffic to bolster the operations of his newly acquired Union Pacific, and its Overland Route between Ogden and Omaha.

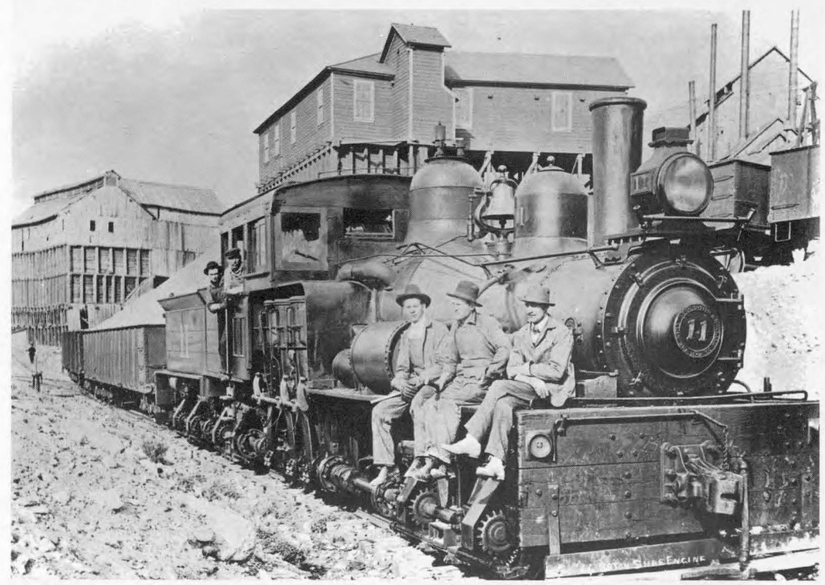
By 1899, the mines of the Tintic district were the top producing mines in the state, by measurement of both tonnage and dollar value. One mine, the Dragon Iron mine, produced 600 carloads of iron ore, which was used in the local manufacture of iron, and by the local smelters as a flux ore to enhance the smelting of silver and lead.

The record ore shipments included

Visible in this 1905 view of the Mammoth Mine is the New East Tintic's upper line and spur to the Mammoth's ore bins at the left. In the center distance, at the upper end of the line is the New East Tintic's engine house, right up against the hill side. - *Shipler Photo, Utah State Historical Society Collection*

ore from the Mammoth mine, which was enjoying its highest producing years. In July 1900, having bought out his brother's (William McIntyre) interest in the Mammoth mine in June 1899 for $250,000, Samuel McIntyre offered to buy both Cunningham's minority interest in the Mammoth mine, and his New East Tintic Railway. The offer to buy Cunningham's interest in the mine (39,000 shares) was accepted at a price of $87,750, but the offer for the railroad was refused.

Having been rebuffed in his offer to buy the railroad, McIntyre commenced to survey for an aerial tramway to replace the New East Tintic Railway. A news item in a June 1900 issue of the national trade publication *Engineering & Mining Journal* gives more detail. Cunningham was charging 30 cents per ton to move ore from the Mammoth mine down to the joint OSL and RGW station at Mammoth. The proposed aerial tramway would move the same 250 tons of ore per day at 6 cents per ton. Particulars for the tramway showed that



New East Tintic Railway's Shay locomotive Number 11 was delivered in 1902 after OSL had purchased the entire railroad. The locomotive is seen here at the switch near the Mammoth mine where the spur to the Mammoth ore bins left the mainline. Number 11 later became LA&SL 59. - *Don Strack Collection*

The Gold Chain mine was originally known as the Sioux-Ajax, and in about 1901, the New East Tintic built a spur to serve the mine's new ore bins, which were built right adjacent to the road's mainline. The Robinson mill is visible to the west in the background. - *Tintic Historical Society Collection*

IIn this view of the Mammoth mine, the ore bins are seen to the right. The New East Tintic's engine house is visible at lower left, and the road's Shay can be seen adjacent to the mine's power house. - *Tintic Historical Society Collection*

it would be 4,800 feet long, with a drop of 350 feet. Its construction was pegged at $15,000, with a projected completion date in September 1900. There is no evidence that the tramway was ever actually completed.

McIntyre's offer may have been refused because Cunningham apparently had larger plans. Less than six months after refusing McIntyre's offer, Cunningham sold his little New East Tintic Railway to E.H. Harriman's Oregon Short Line Railroad. The *Salt Lake Daily Tribune* of November 28, 1900 put it well when its headlines read, "Short Line Gets It," relating the story that on the same day, the OSL closed the deal of purchasing the New East Tintic for $30,000, payable to Cunningham in the form of OSL securities. According to newspaper accounts, Rio Grande Western interests had earlier held an option to buy Cunningham's road, but when that offer expired without being exercised, Harriman snapped it up.

Still unanswered is the question of why Harriman would be interested in such a small line, with its unique Shay locomotive, marginal operations, and expensive-to-operate steep grades and sharp curves. It could have been simply to keep it away from Rio Grande, by now controlled by George Gould, and Harriman wanted to limit Gould's expansion in the West. Whatever the answer, OSL immediately set about expanding the New East Tintic line, surveying for spurs to serve more of the mines in Mammoth Hollow, including the Grand Central. By December 1901, another spur had been run to the Sioux-Ajax mine (later known as the Gold Chain mine). According to the local newspapers, traffic was good. In the last week of September 1903 alone, the entire Tintic district shipped 108 carloads of high-value ore to the smelters in Salt Lake Valley.

After purchasing the line, OSL set about with its own expansion of its service to the district. Included in the plans were more spurs and sidings to serve new mines and mills in Eureka, and a new 65-ton, 3-truck Shay. In late July 1901, OSL ordered from Lima what would become New East Tintic number 11. (OSL never applied its own name to the two New East Tintic Shay locomotives.) The new locomotive, which later became LA&SL 59, was shipped from Lima on January 11, 1902.

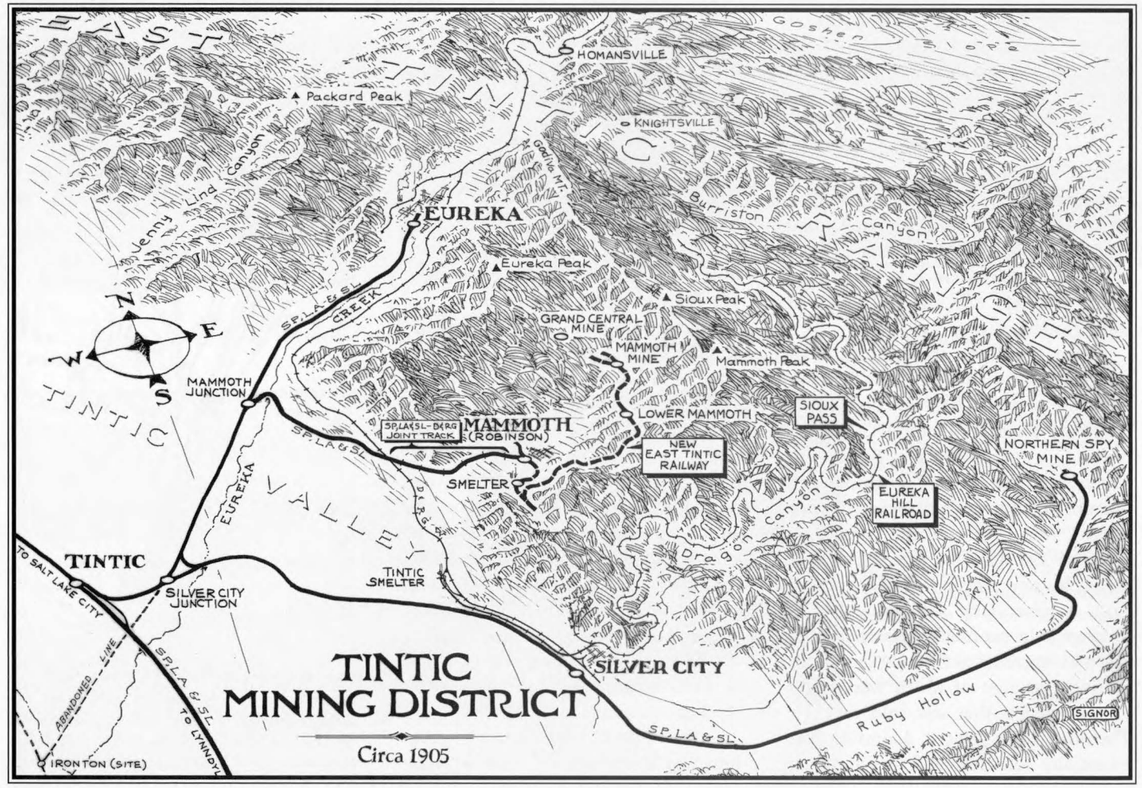
OSL kept a separate set of accounting books for the New East Tintic Railway, following its November 1900 purchase of the line. On March 31, 1902, an entry was made charging New East Tintic $9,297 for OSL's costs of purchasing, shipping, and setting up New East Tintic's newest locomotive, number 11. In the 15 month period between November 1, 1900 and March 31, 1902, OSL earnings for the line were $25,190.96 ($522,400 in 2002 dollars); and its expenses, $12,357.73. The account book also shows that an extension to the Sioux-Ajax mine in Lower Mammoth cost a total of $3,507.25 to survey and build.

Out in Tintic Valley, more changes were in the works. Harriman's expansion plans for the larger Oregon Short Line Railroad included a line from Salt Lake City to Los Angeles, making use of the existing old Utah Southern line as far as Milford, and by exercising an option of the newly completed, and independent, Utah & Pacific line south from Milford to the Utah-Nevada state line at Uvada. The pioneering Utah Southern route from the 1870s and 1880s was found to be impractical and too costly at several parts of its route in the Salt Lake and Utah valleys, and in Sevier Canyon, to economically upgrade. So in 1901, a new line was surveyed west from Salt Lake City to the south shore of Great Salt Lake, then south along the Tooele, Rush, and Tintic valleys to a point on the old Utah Southern near Lynndyl. Called the Leamington Cutoff because it joined with the old Utah Southern at the top of Leamington Hill, the new 117-mile line would have gentle curves (4 degrees) and gentle grades (0.8 percent), to replace Utah Southern's original 133-mile route with its 6 degree curves and 1.14 percent grades. Construction commenced in March 1902, and the cutoff was completed in June 1903; the first revenue train was run on June 20, 1903.

While the Leamington Cutoff was under construction, competition raised it ugly head against Harriman's plans for Southern California. In March 1901, Senator William Clark organized his San Pedro, Los Angeles & Salt Lake Railroad to build between Salt Lake City and Los Angeles. Clark started construction at the southern end, while at the northern end, Harriman meant to upgrade portions of the OSL in Utah, and extend the OSL across southern Nevada to California and the Los Angeles basin. Neither Harriman nor Clark planned on cooperation with the other to complete their lines, and the clash of interests in the dry canyons of Southern Nevada has been the subject of at least two books. Great amounts of labor and money were expended, but in mid 1902, after the two parties had sued and counter-sued each other to an even draw, negotiations progressed to an agreement on July 9, 1902 that ended the rivalry. A year was needed for all the arrangements to be made and for the dust to settle. On June 18, 1903, Oregon Short Line Railroad sold to San Pedro, Los Angeles & Salt Lake Railroad, all of its routes south and west of Salt Lake City, with initial operations taking place on July 6, 1903. In return, OSL took a full half interest in the operations and fortunes of the San Pedro line. The result of this clash of titans was that the Tintic branches changed ownership from OSL to SP,LA&SL on that same June 18, 1903 date. On May 26, 1905, SP,LA&SL[1] formally completed the route between Salt Lake City and Los Angeles and began regular operations.

The Leamington Cutoff crossed the Tintic Branch (built in 1882 by the former Salt Lake & Western) at the top of Boulter Hill, the high point on the

1. In 1916 the San Pedro, Los Angeles & Salt Lake Railroad shortened its name to the Los Angeles & Salt Lake Railroad. On April 27, 1921, after maintaining his interest for almost 18 years, Senator Clark retired his half interest in the Los Angeles & Salt Lake Railroad, selling out to Union Pacific. This gave UP full control of LA&SL, including the other half owned by OSL, which UP had fully controlled since 1897.

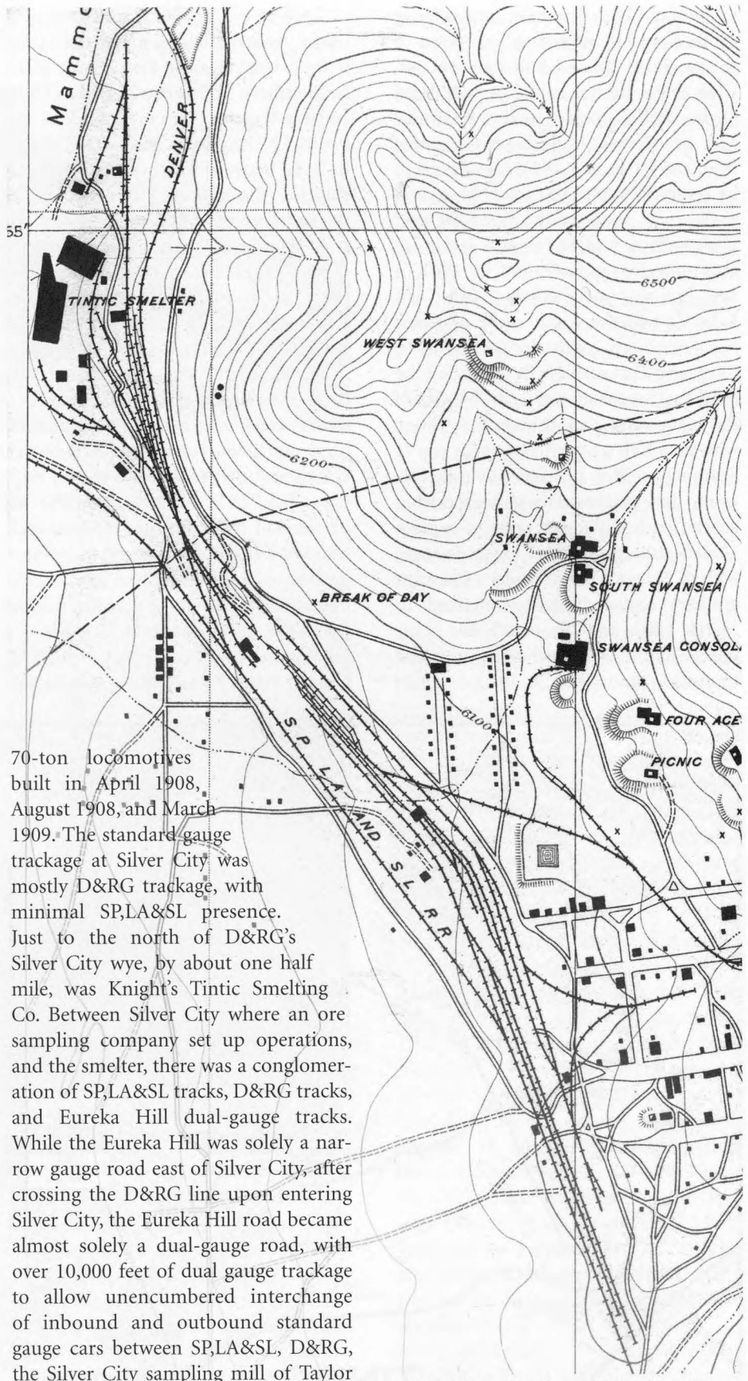


two lines, and 43 miles south of the old Salt Lake & Western connection with the old Utah Southern main line at Lehi Junction. Further south, Harriman's new cutoff also crossed the branches to Eureka and Silver City originally built in 1883 by the old SL&W, at a point 1.8 miles northeast of the original wye at Ironton. The point where the new cutoff crossed the old Eureka Branch was named Tintic. The 10.04 miles of the old OSL&UN (former SL&W) Tintic Branch between Boulter and "old" Tintic was abandoned in 1904, including the original wye at Ironton, and the original terminal at the old Tintic. The mill and smelter at that location had closed in the early 1890s.

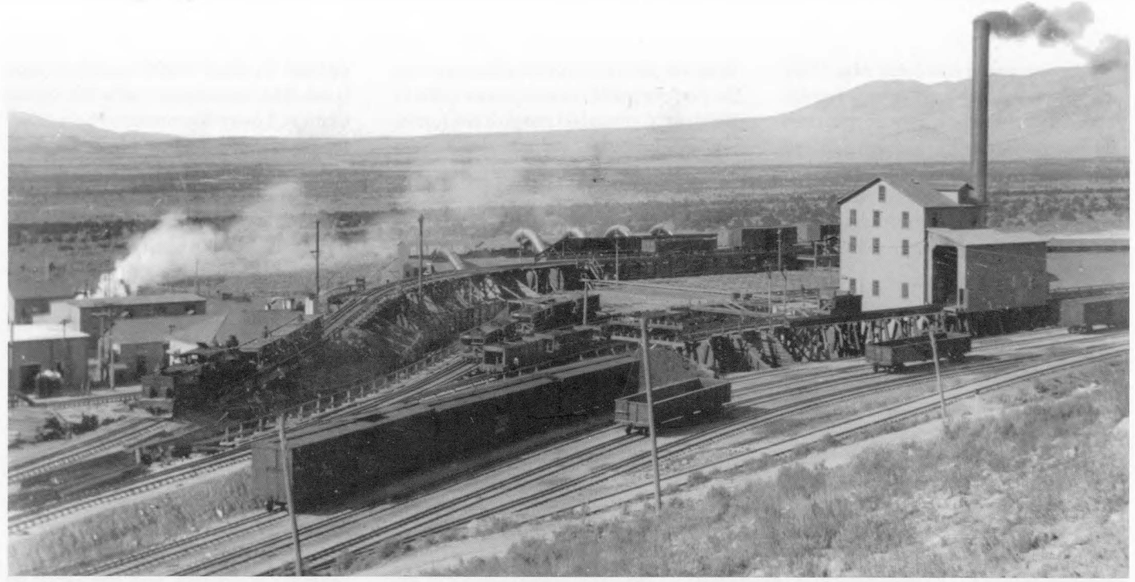
After the 1903 change of ownership, and the 1904 abandonment of the unneeded parts of the old Salt Lake & Western, the Tintic branches were in their final configuration. This included the 3.66 mile Eureka Branch between the new Tintic and Eureka; the two-mile Silver City Branch, from a connection on the Eureka Branch, one-half mile from Tintic, to Silver City; the 2.75 mile Mammoth Branch, from a connection on the Eureka Branch 1.5 miles from Tintic, to Mammoth, where the branch shared a bit less than a mile of joint trackage with Rio Grande; and the two-mile steep and curving New East Tintic Branch, from Mammoth up through a switchback to the Mammoth mine. Also included was the Northern Spy Mine Branch, three miles long, from the end of the Silver City Branch at Silver City, to the Northern Spy mine's ore bins in Ruby Hollow.

Also at Silver City was the independent Eureka Hill Railroad. This was a narrow gauge (3 feet) line built solely to get ore down from several Tintic-area mines to a local smelter at Silver City. The smelter and many of the mines, and the railroad itself were all owned by Jesse Knight, who organized the railroad in February 1907 with the intention of supplying his new smelter (Tintic Smelting Co.) at Silver City with enough ores to keep it in profitable operation. The line was operated with four Shay locomotives, the first of which was a light 28-ton version that was sold in 1915. The other three (Nos. 2, 3, and 4) were essentially identical and much larger 70-ton locomotives built in April 1908, August 1908, and March 1909. The standard gauge trackage at Silver City was mostly D&RG trackage, with minimal SP,LA&SL presence. Just to the north of D&RG's Silver City wye, by about one half mile, was Knight's Tintic Smelting Co. Between Silver City where an ore sampling company set up operations, and the smelter, there was a conglomeration of SP,LA&SL tracks, D&RG tracks, and Eureka Hill dual-gauge tracks. While the Eureka Hill was solely a narrow gauge road east of Silver City, after crossing the D&RG line upon entering Silver City, the Eureka Hill road became almost solely a dual-gauge road, with over 10,000 feet of dual gauge trackage to allow unencumbered interchange of inbound and outbound standard gauge cars between SP,LA&SL, D&RG, the Silver City sampling mill of Taylor & Brinton, and Jesse Knight's Tintic smelter a half mile to the north.

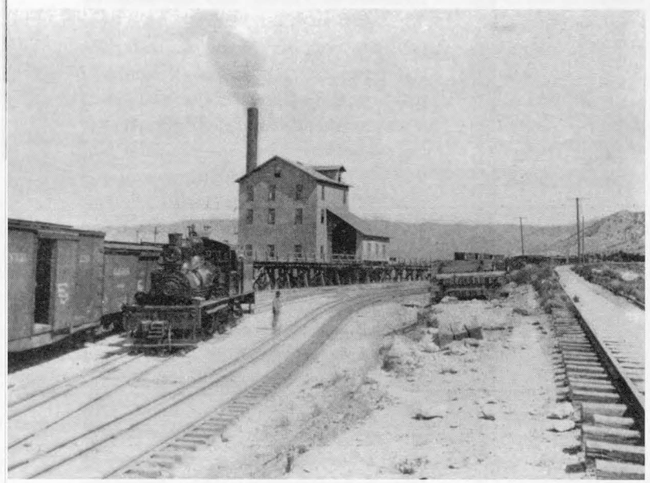
The Eureka Hill narrow gauge line was completed to various mines



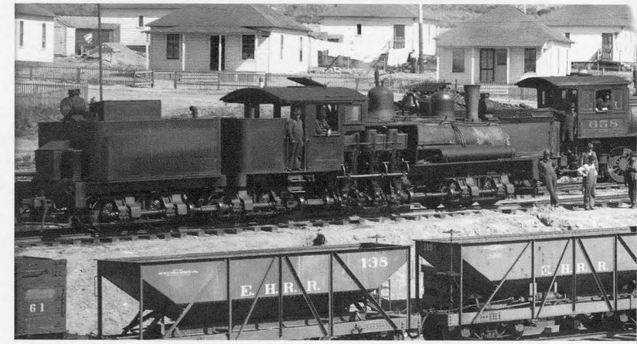
Map of Silver City Utah 1913. Silver City was a complex station served by two standard gauge carriers, SP,LA&SL and D&RG, and one narrow gauge, the Eurkea Hill Railroad. *-Don Strack Collection*



An early view of the Tintic smelter, showing the extensive dual-gauge trackage operated by the Eureka Hill Railroad. The D&RG Silver City Branch is the first track in the foreground. The SP,LA&SL ran behind the smelter in this view looking northwest. *-Young Photo, Utah State Historical Society Collection*



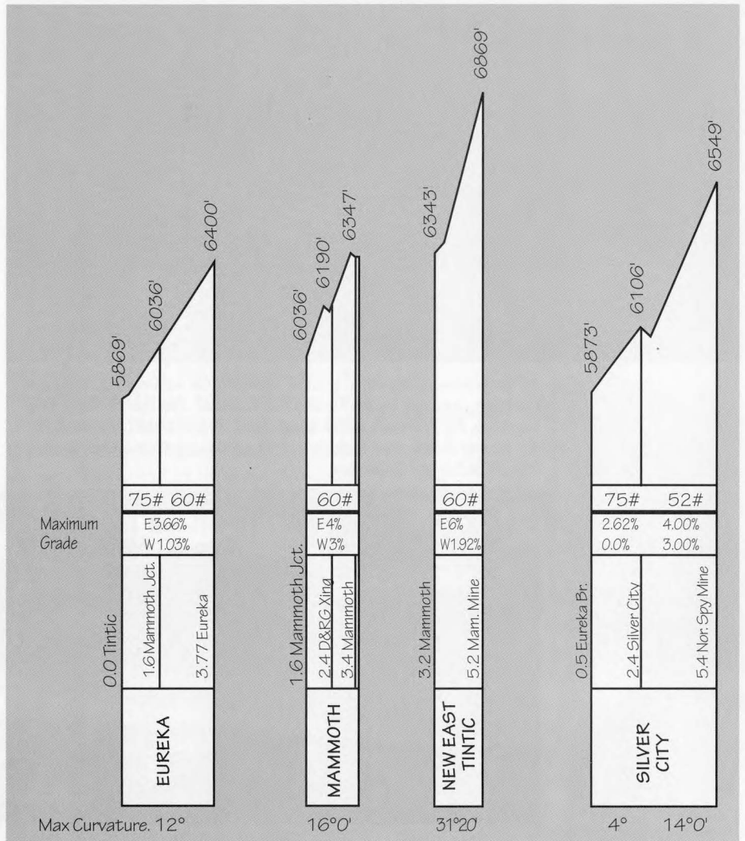
Dual-gauge Eureka Hill trackage is also visible in this 1908 view of the Tintic Smelting Co.where a Eureka Hill narrow gauge Shay is at work. *- Sam Bass Collection*



At 70 tons each, Eureka Hill Railroad's three narrow gauge Shays were larger than LA&SL 59, but smaller than LA&SL 61. Here, EHRR number 3 poses with its crew at Silver City in 1908, with a RGW 2-8-0 in the background. *- Shipler Photo, Utah State Historical Society Collection*

SP,LA&SL Number 61 worked all of the Tintic branches, and is seen here in 1908 at Silver City switching the Taylor & Brinton sampler mill. Just visible near the locomotive's headlight is but a small portion of the dual-gauge trackage that made up much of the rail lines in and around Silver City. Narrow gauge ore cars of the Eureka Hill Railroad can be seen on an adjacent track, just behind Number 61. *- Shipler Photo, Utah State Historical Society Collection*

between December 1907 and May 1908, and for its cars, the road used a combination of wooden ore cars bought second hand, and steel ore cars purchased new. Because the smelter was intended to be for the custom processing of ores, the first ore actually came from a mine in Bingham Canyon, 40 miles to the north, but ores from the local mines were very soon being processed. When the smelter opened in June 1908, smelting contracts had been signed with the Grand Central, Lower Mammoth, Horn Silver (at Frisco, reopened after going bust in 1885), and Jesse Knight's own Colorado, Iron Blossom, Black Jack, and Swansea mines, thus providing both D&RG and the San Pedro with plenty of traffic, both inbound and outbound. Additional traffic came from the San Pedro's Northern Spy Branch, from Silver City to the ore bins of the Northern Spy mine in Ruby Hollow. Jesse Knight had purchased the Northern Spy mine in 1899 as one of his earliest mining acquisitions.



The Tintic Subdivision's Grades

Like many of the companies that operated Shay locomotives, UP's Shays were purchased specifically to operate over trackage that had severe curves and steep grades. The Tintic branches certainly fit this description. While the Mammoth, Silver City, Eureka and Northern Spy branches were steep by mainline standards, reaching 4 percent and sharply curved, at 16 degrees in places, the New East Tintic Branch was more challenging. Curves were extremely tight, at 30 degrees (193 feet radius; 26 inches in HO scale), and the grades were steep; 5.79 percent from Mammoth to the switchback (MP 3.645) and 6 percent from the switchback to Mammoth mine (MP 5.21). This was serious air brake rules territory. UP Special Instructions warned crews to maintain 90lbs. brake pipe pressure on engines at all times. On descending from Mammoth, Eureka and Silver City, trains were limited to ten cars and speed was not to exceed eight miles an hour. All cars used on the district were to be inspected by the Mechanical Department at Tintic and cars destined the Mammoth Mill on the New East Tintic line were to be equipped with special 30 lb. retaining valves, and all brakes were to be cut in and operative. On the New East Tintic Branch, trains descending were limited to three cars.

The boom times continued. In January 1904, the Lower Mammoth mine was said to be shipping 10 carloads per day, all by way of the New East Tintic line, making the San Pedro very happy with its recent purchase. In 1907, the San Pedro bought a third Shay locomotive to allow the road to handle the increasing traffic of more ore from the growing mines in the district. The second largest paying mine in the district, the Sioux mine (served by the former New East Tintic Railway), paid out $566,000 in dividends in 1909 ($10.8 million in 2002 dollars). The first and third best-paying mines, the Colorado and the Iron Blossom, were on Jesse Knight's Eureka Hill narrow gauge line, which connected directly with the San Pedro at Silver City. Between them, both D&RGW and SP,LA&SL handled 8,500 carloads shipped from the various mines in the district during 1909, or 450,000 tons. That's about 34 carloads per day for the two railroads combined. One source relates that a single carload from Tintic in 1906 was valued at $107,000, and another notes that RGW shipped out 113 cars in the second week of December 1905.

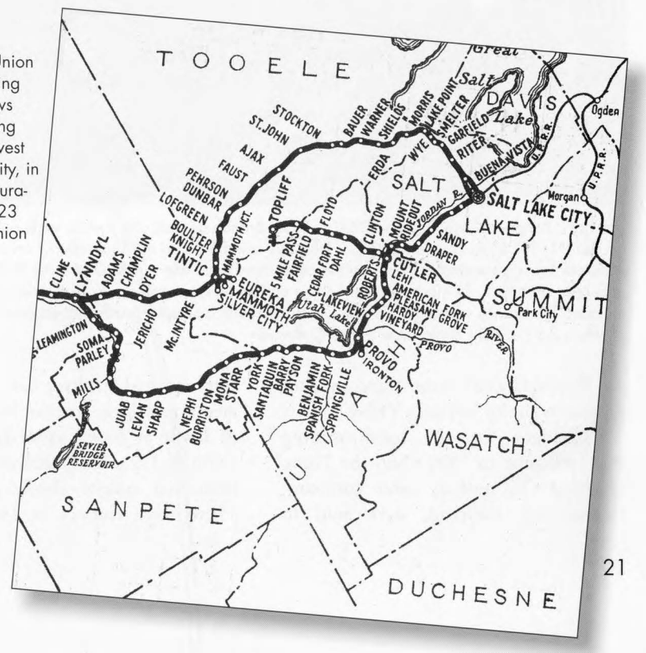
To this valuable outbound mining traffic, add inbound merchandise, and inbound coal and mining supplies, all making the Tintic district a major part of Utah's railroad network. In 1908, Taylor & Brinton (later Utah Ore Sampling Co.) built a new ore sampling mill at Silver City to better assay the value of the ore from the various mines, giving the mine owners the flexibility of shipping their ore to the local Knight smelter (also built in 1908), or to any of the smelters in Salt Lake Valley, which between 1900 and 1905 was the largest center of smelting in the western United States. Many of the mines took advantage of a better market for their ores by the Salt Lake smelters, forcing the closure of Jesse Knight's smelter at Silver City in 1915, although the milling portion remained in operation as late as 1918, processing as much as 200 tons per day for Knight's Dragon, Iron Blossom, and Colorado mines. The boom times continued through the end of World War I, which changed the worldwide markets for gold and silver, and especially for lead. Tintic's boom from 1890 to 1920 brought millions of dollars to the mines in the district, but after that time, the district's fortunes would continue to fall.

In 1902, six years before the Eureka Hill was completed in 1908, two new large and modern smelters had been completed in Salt Lake Valley, one by American Smelting & Refining Co. (Asarco) at Murray and the other by U.S. Smelting Co. at Midvale. Both were served by both RGW and OSL, and made use of new smelting processes that made processing Tintic ore more profitable. More mines soon came on line, and existing mines were either reopened or had their operations expanded. An example of the booming mine traffic was an article in a December 1900 issue of *The Mining Review*. The article mentioned that although there had been significant litigation among the mine owners over adjacent property rights, including a large suit between the Grand Central and the Mammoth mines at Mammoth, and other suits involving the Bullion-Beck at Eureka, the Tintic district was still shipping more ore every year, compared to each previous year. The Centennial-Eureka mine at Eureka had been sold to the United States Mining Co., in August 1899 to furnish fluxing ores that would allow its new Midvale smelter to better process the company's larger volume of Bingham ore. The Centennial-Eureka was the largest shipper in Tintic in 1900, shipping 1,633 car loads consisting of 40,825 tons of gold, silver, copper, and lead ores, an average of 25 tons per car, with an average value of $53 per ton. The mine had just installed a new aerial tramway to get its ore down to a spur on the OSL just to the west of Eureka, replacing the previous costly method of using teams and freight wagons. The article noted that for 1900, the Tintic district shipped a total of 5,246 cars of ore (or about 19 cars per day), moving a total of 131,050 tons of ore to the local smelters. The new smelters in Salt Lake Valley allowed lower smelting costs, and their new direct processing of Tintic ore forced all of the four reduction mills (Eureka Hill, Bullion-Beck, Robinson, and Farrel) built between 1893 and 1895, to close by 1903.

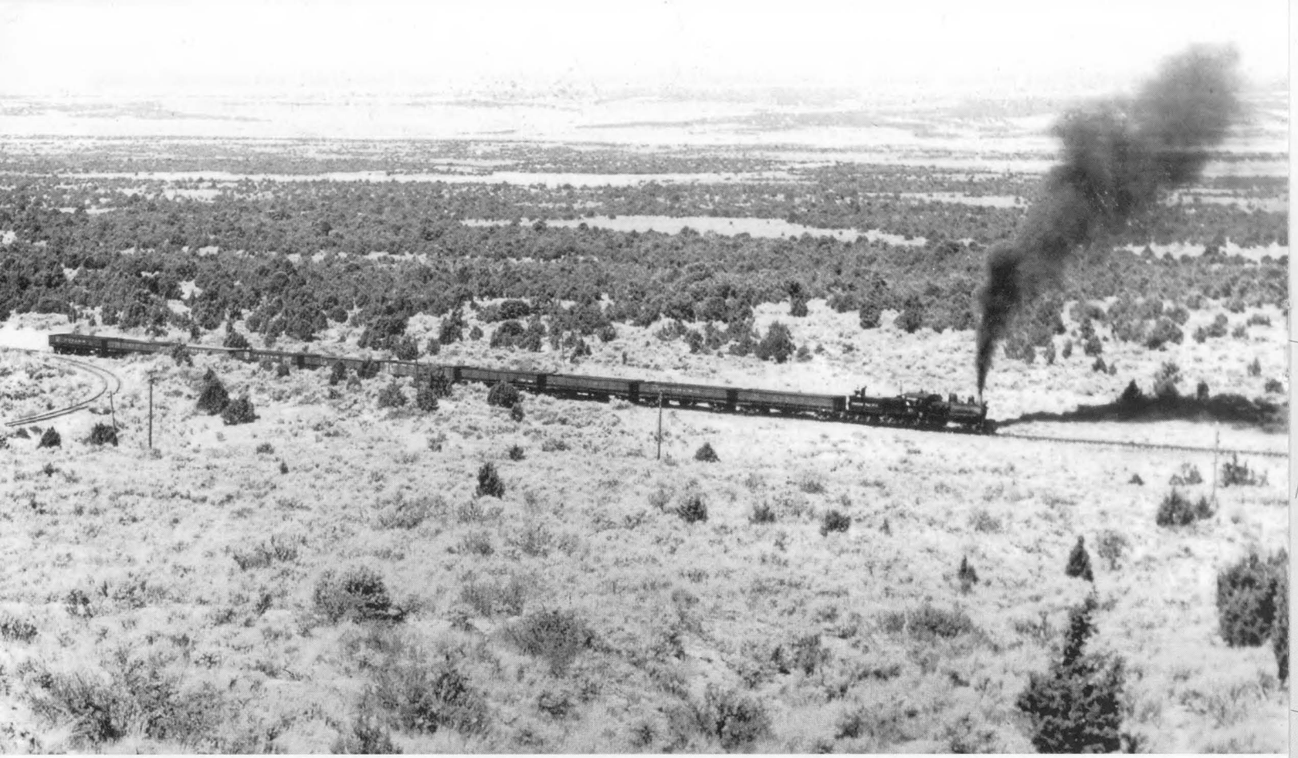
In January 1918 the bi-weekly trade publication, *Salt Lake Mining Review* reported that the Mammoth Mining Co. complained about high rates being charged by LA&SL to ship the ore from the Mammoth mine down to Mammoth (Robinson), via the former New East Tintic Railway. In 1917 LA&SL had charged $7,500 to move 40,000 tons of ore in 840 cars from the mine. Although lower than the $30 figure the mine was charged in 1900, this 1918 figure of $5.30 per ton was once again deemed too high. Again, the mining company threatened to build an aerial tramway from their mine down to the D&RG at Mammoth, but again, the threat came to nothing. This exchange gives some indication of the fortunes of the Mammoth. It wasn't rich enough to ever build a more efficient aerial tramway, but the traffic after World War I was never low enough to justify to government regulators that the railroads should simply abandon their service. Instead, the mine and the railroads continued to suffer through various boom and bust cycles, and continued to limp along for another 35 years until rising costs and diminishing ore reserves drove the mine to stop shipping altogether.

The earliest successful mines in the Tintic district were on the western slopes of the East Tintic Mountains. New mines were being expanded across the ridge on the eastern slopes, and to reach them, the mine owners organized the Goshen Valley Railroad in December 1918, to reach their new Tintic Standard, Iron King, and South Standard mines. The new line was surveyed and built by D&RG forces, and leased to D&RG for operation when it was completed, in return for 4/5 interest and control of the Goshen Valley company. The D&RGW (reorganized from the D&RG in 1921) purchased the remaining 1/5 share in 1927. The Goshen Valley consisted of seven miles of rail line from Pearl (on D&RG's Tintic Branch) to Dividend, and from Flora to Iron King (two miles), and was formally merged with D&RGW in 1947.

According to UP engineering records, in December 1924 LA&SL completed what was called the "AS&R Spur," a new 621-feet long spur constructed for the American Smelting & Refining Co. This new spur added to the existing spur that served the limestone quarries at the mouth of Mammoth Hollow, and was jointly owned by both LA&SL and D&RGW. Limestone was a major requirement of the smelting process and



Map from a Union Pacific operating timetable shows the Tintic mining district, southwest of Salt Lake City, in its final configuration about 1923 encirled by Union Pacific lines.



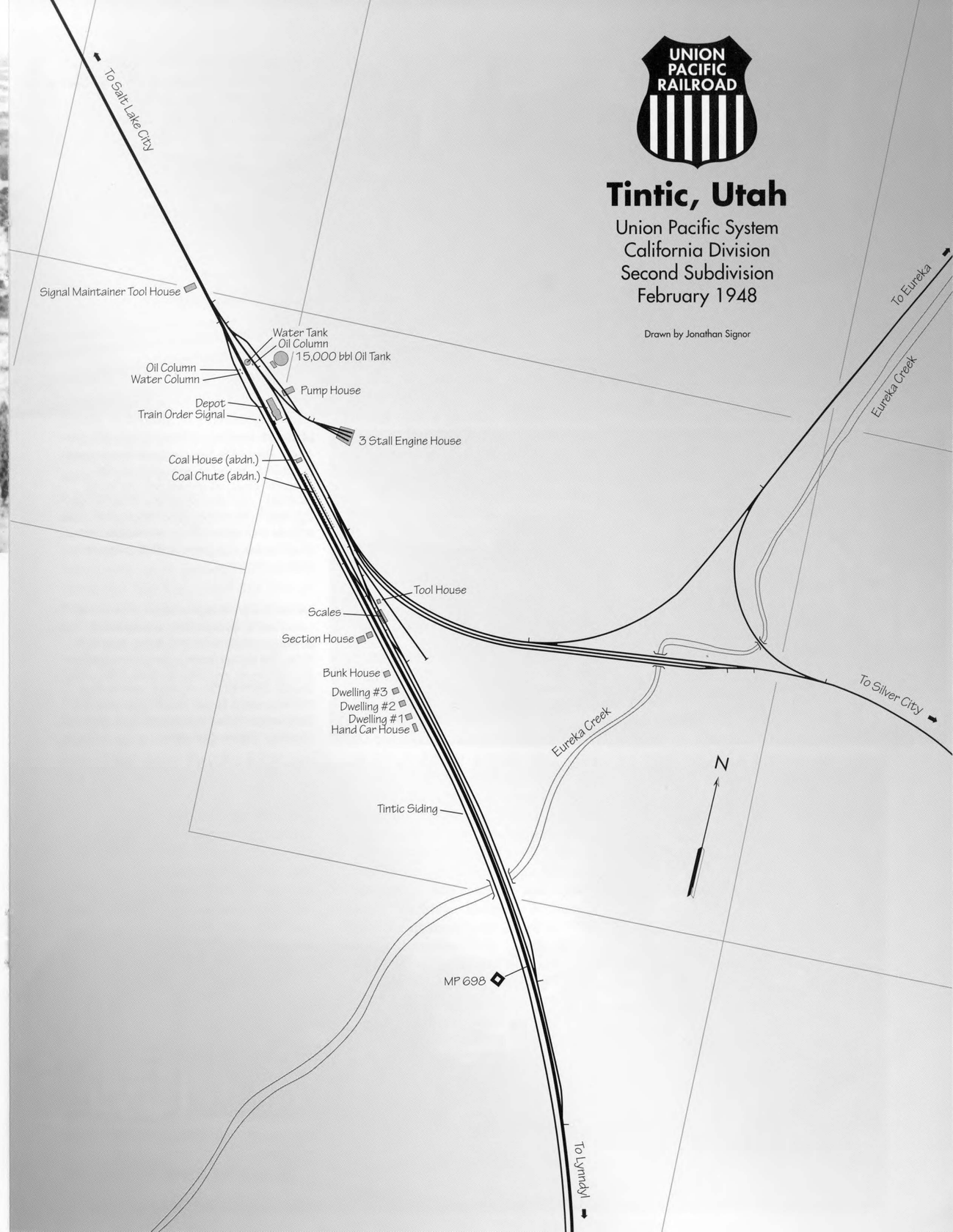
Throughout the 1930s and 1940s, mining traffic on the Tintic branches continued to decline. While the Mammoth and Silver City mines were in a slump, the mines in the Eureka area were producing between five and ten carloads every other day. In this view from the late 1940s, LA&SL 61 is seen headed for Eureka with a string of empty GS gondolas, the standard equipment for the branches' traffic. The train's last car has just passed Mammoth Junction, with the Mammoth Branch curving away to the south. - *Allen Madison Photo, William W. Kratville Collection*

The Tintic Range Railway became D&RG's Tintic Branch as part of a system wide reorganization, on July 31, 1908. By the early 1940s, D&RGW operated into the Tintic district on a three-days-per-week basis, returning to Provo on the other three days. Here, D&RGW 2-6-6-2 3307 arrives at Eureka on July 5, 1940, having just come up Pinyon Canyon by way of the new line that replaced the branch's famous "Double Circle" but with a steeper grade that required larger motive power. - *R. H. Kindig Photo, Don Strack Collection*

was shipped by rail to the Asarco smelter at Murray in the Salt Lake Valley.

Changes for the local mining interests came in 1926 when the Tintic Smelting Co., and its sister company, Eureka Hill Railroad, were sold to International Smelting Co., which operated a very large smelter 50 miles north of Tintic at Tooele. After Jesse Knight's death in 1921, his extensive mining and industrial empire slowly came apart. There were rumors in 1925 that UP would buy the narrow gauge road, but these were likely just wishful thinking on the part of his heirs. The Eureka Hill, with its three narrow gauge 70-ton, 3-truck Shay locomotives, was shut down in December 1928 due to low revenues following a dip in silver prices. The rails were torn up in 1937, but the road's equipment sat unused at Silver City until World War II scrap drives in 1942 saw the narrow-gauge line's locomotives and remaining cars cut up for scrap and likely shipped in standard gauge gondolas to the newly constructed Geneva steel mill. In March 1936, International Smelting had been sold to Anaconda Copper Co.

As an operational note, on January 1, 1936, rather than just having corporate control, Union Pacific formally leased the entire LA&SL for operation. On June 14, 1936, the first LA&SL timetable under the UP unification went into effect. The Tintic branches were operated as a part of Union Pacific's Southwestern District until November 20, 1937, when it became known as



LA&SL 59 switching at Tintic on June 21, 1947. The LA&SL Shay locomotives assigned to the Tintic branches were oil fired. On a regular basis, oil arrived and had to be switched to the oil loading spur to fill the storage tank in the background. Another oil stand at Tintic also served to top off mainline trains. - Two photos, *F. J. Peterson Photo, Donald Duke Collection*

Below: The brick engine house at Tintic was completed in about 1903, and replaced an earlier structure located at the Mammoth mine. The engine house's design matched similar, but larger, roundhouses built at the same time at Salt Lake City, Lynndyl, and Milford. No information has surfaced as to when the Tintic engine house was torn down. - *Tintic Historical Society Collection*

the South-Central District, and the branches were listed under the Los Angeles Division. The Utah Division was formed on November 2, 1941 and lasted until February 29, 1948 when the California Division was extended to Salt Lake City. Within a short year and a half, the California Division was pushed back to end at Las Vegas, and beginning on September 11, 1949, the Utah Division again controlled and operated the Tintic branches until their formal abandonment 30 years later.

Passenger Service

Railroads were the best means of transportation for travelers in the Tintic area, until improved roads came to the region. According to a passenger timetable for the joint trackage at Mammoth, dated April 1900, there were two daily pairs of trains on the OSL: Nos. 3 and 4 arrived and departed in late morning, and Nos. 5 and 6 arrived and departed in mid afternoon. (This was before the Leamington Cutoff, meaning that their sole traffic were passengers between Tintic and Salt Lake City.) Rio Grande Western operated a pair of daily passenger trains, plus a daily mixed train.

U. S. Highway 6 through Eureka was completed as a transcontinental highway in mid 1937, making automobile travel for Tintic residents much more convenient. U.S. 6 was preceded by improved gravel roads, so by the late 1920s, rail passenger travel to and from the district was in a slump. In 1921, LA&SL cut off the last remaining Salt Lake City-Tintic train that operated by way of the old Salt Lake & Western between Cutler and Boulter. In March 1929, D&RGW stopped operating trains between Springville and Silver City. In May 1929, LA&SL and D&RGW were allowed to close the joint agency station at Silver City. The end for all local rail passenger service came in February 1932 when LA&SL was allowed to end its local service on the Tintic Subdivision, and substitute a private contractor's auto buses for its passenger, mail, and express service between Tintic and the various towns, including Eureka, Mammoth, and Silver City. The joint agency, and the depot itself, at Mammoth was closed in October 1933, and UP's Eureka agent was removed in January 1948. Union Pacific continued to sell tickets from its Tintic depot (as a flag stop) until the last eastbound *City of Los Angeles* passed through Tintic in the early morning hours of May 1, 1971.

Abandonments

The abandonments started very early. In 1917, Jesse Knight's Northern Spy mine failed due to rising water levels in the mine, a problem that caused the failure of many Tintic mines. The Northern Spy Mine Branch that served the Northern Spy mine laid unused until it was abandoned in 1921, reinstated in 1926 for car storage, and abandoned again in October 1937 and taken up. In May 1921, the southern end of the old Salt Lake & Western was abandoned between Del Monte and Boulter, the connection to the Leamington Cutoff mainline. Del Monte was a station on the old Salt Lake & Western, four miles north of the mainline connection at Boulter, and was where a mining company was dumping ore directly into railroad cars from wagons. With the completion of the Leamington Cutoff in 1903, this old piece of the original Salt Lake & Western had been renamed the Fairfield Branch, and after the cutback in 1921, the Fairfield Branch lost its through-connection to the mainline. At the same time, in 1921, a daily passenger train between Salt Lake City and Tintic, by way of the Fairfield Branch, was also cut off. A further cutback took place in 1927 when the Fairfield Branch was abandoned south of the limestone quarries at Topliff, eight miles further north. (The limestone quarries had opened in 1906 to supply limestone to the local Salt Lake Valley smelters of both American Smelting & Refining Co. and United States Smelting, Refining & Mining Co.) The quarries were closed in 1937, and in September 1938, UP abandoned and removed an additional 6.5 miles of the south end of the Fairfield Branch between the Topliff limestone quarries and Five Mile Pass, where another mining company maintained a truck dump for its ores. The 1938 abandonment included seven miles of spur tracks from Topliff into the quarries themselves. The branch itself, what remained of the original Salt Lake & Western, was finally abandoned between Cutler and Five Mile Pass in 1942.

On March 15, 1942 the Mammoth depot building was completely destroyed by fire. In the insurance claim documents, the superintendent stated that the fire had likely been caused by children playing around the unmanned structure, and that it would be replaced. However, on November 7th, the 20 feet by 76 feet building, or rather what was left of it, was formally retired. Prior to 1933, the depot building had been used as the location of a joint agency station for both D&RGW and LA&SL. In October 1933, LA&SL removed its agent, who had been serving as the joint agent for both D&RGW and LA&SL. After 1933, the agent at Eureka was responsible for car orders and the paper work associated with car shipments.

The federal Interstate Commerce Commission gave its blessing in November 1943 for D&RGW's abandonment of its line from Eureka to Silver City, including the use of the LA&SL joint trackage at Mammoth. According to ICC documents, at the time Silver City had a population of 500 people. Freight service was provided by a train from Provo to Silver City on Mondays, Wednesdays, and Fridays, returning to Provo on alternate days. The 1926 timetable showed a daily (except Monday) freight between Silver City, leaving at 7:45 a.m., and Springville, arriving at 1:00 p.m. The train left Springville daily (except Sunday) at 8:00 a.m. and arrived at Silver City at 2:45 p.m.

Traffic on D&RGW's line to Silver City consisted of 66 cars with 3,583 tons in 1941, seven cars (348 tons) in 1942, and three cars (167 tons) in the first six months of 1943. All the traffic in 1941 and five of the cars in 1942 were ores and concentrates. The other two cars in 1942 and the three cars in 1943 were "mine products." Rio Grande sold its interest in the Mammoth joint spur to UP in August 1944.

Union Pacific removed its agent at the Eureka depot in January 1948, transferring all of the work to the agent at Tintic. In the supporting documents to the road's application to close the Eureka agency, the number of carloads for Eureka, Mammoth, and Silver City were included. For Eureka in 1945, there

WESTWARD — EUREKA BRANCH — EASTWARD

Time-Table No. 101, January 1, 1942

Length of sidings in feet, etc. See Rule 6 (A).	Distance from Tintic	STATIONS	Distance from Eureka
WFYOP	0.0	DN TINTIC U	3.6
		0.8	
	0.8	TINTIC WYE	2.8
		0.8	
	1.6	MAMMOTH JCT.	2.0
		2.0	
295	3.6	D EUREKA RK	0.0
		3.6	

WESTWARD — MAMMOTH BRANCH — EASTWARD

Time-Table No. 101, January 1, 1942

Distance from Mammoth Junc.	STATIONS	Distance from Mammoth
0.0	MAMMOTH JCT.	1.6
	0.8	
0.8	D. & R. G. W. CROSSING	0.8
	0.8	
1.6	MAMMOTH	0.0
	1.6	

Trains are governed by D.&R.G.W. Rules and Regulations while using their tracks between D.&R.G.W. crossing and Mammoth.

WESTWARD — SILVER CITY BRANCH — EASTWARD

Time-Table No. 101, January 1, 1942

Length of sidings in feet, etc. See Rule 6 (A).	Distance from Tintic	STATIONS	Distance from Silver City
WFYOP	0.0	DN TINTIC U	2.4
		0.8	
	0.8	TINTIC WYE	1.6
		1.6	
	2.4	SILVER CITY	0.0
		2.4	

No regular service was indicated on the Tintic Subdivision branches in the January 1, 1942, Utah Division Time-Table No. 101 and the Northern Spy Mine Branch was missing, abandoned for the last time in October 1937. *-Don Strack Collection*

were 1,477 carloads shipped and four received. For 1946 the numbers were 1,235 shipped and nine received. For Mammoth, the 1945 numbers were 117 shipped and 10 cars of coal were received. Mammoth's 1946 numbers were 125 cars shipped and, again, 10 cars of coal were received. Silver City shipped only 21 cars in 1945 and 20 cars in 1946. No cars were received at Silver City in either 1945 or 1946. All of these cars would have been gathered and delivered to Tintic by UP's two remaining Shay locomotives, No. 59 and No. 61. At just four or five cars per working day, this would not have been a lot of work, but in those days of lower labor costs, would have been just enough for the crews and Shay locomotives at Tintic to keep busy.

UP retired the last two remaining Shay locomotives in September 1948 (No. 61) and February 1949 (No. 59). UP records show that ALCo RSC-2 diesel locomotives were assigned to several branches in Utah upon their delivery in April 1948. Photographic evidence from Emil Albrecht's photos shows that, at minimum, they came to Utah's Cache Valley branches. Bill Simpson, a UP Bridges & Buildings pipefitter who worked for several years at Tintic remembered 25 years after his service there, that the Shays at Tintic were replaced by "six-axle ALCos." Although the New East Tintic Branch apparently saw little, if any, service after the late 1930s, the sight of a UP Shay fighting its way up the 6 percent switchback on the New East Tintic Branch is an appealing one. The sight of an RSC-2 in the same service is as equally appealing to a fan of early diesel locomotives. Unfortunately, the limited number of carloads coming down off the Mammoth Branch in the late 1940s and early 1950s doesn't support seeing such a thing. The use of a six-axle ALCo roadswitcher on the other Tintic branches to both Eureka and Silver City, with grades as high as 3.5 percent, is equally appealing, and a definite possibility. When the ALCo locomotives were sent east to be rebuilt in 1954-1955, they were replaced by 100-, 200-, and 300-class GP7s and GP9s, which remained the motive power on the Tintic branches until final abandonment in 1979.

In September 1957, UP applied to the ICC to abandon the Mammoth Branch. In the application, the Mammoth Branch was shown as being 3.74 miles long, with another 0.76 mile of side tracks, consisting of the line from Mammoth Junction on the Eureka Branch, southeast to Mammoth, and including the steep New East Tintic Branch to the Mammoth mine. According to available track profiles, the Mammoth Branch extended from Mammoth Junction, mile post 1.59, to Mammoth, mile post 3.22, and on up the New East Tintic Branch to Mammoth Mine at mile post 5.21, a total length of 3.63 miles, not counting side tracks and spurs.

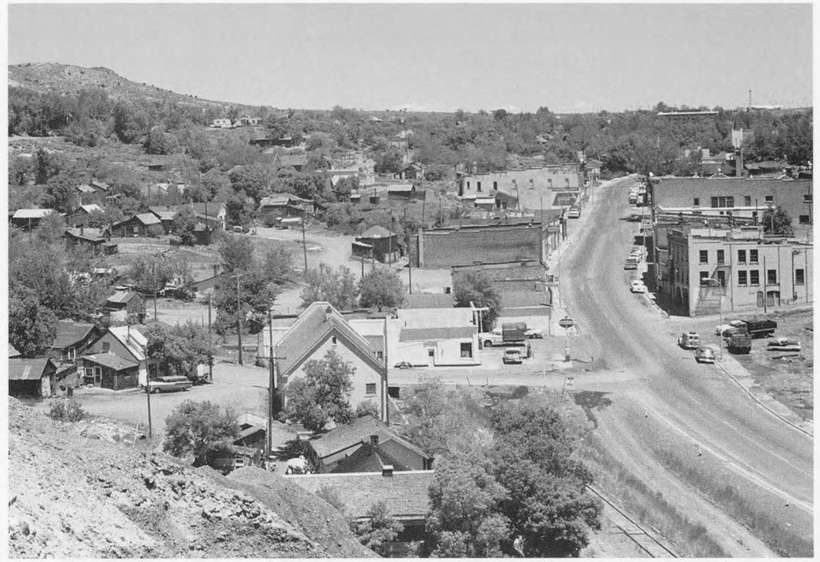
Although not mentioned in the 1957 abandonment application, there is evidence that the New East Tintic Branch between Mammoth and the Mammoth mine was removed from service some time between 1923 and 1937. An undated track profile shows that second-hand 90-pound rail had been installed on the branch in 1923, but the branch was not included as part of the 1937 employee timetable. The length of line to be abandoned shown in the 1957 application indicates that the New East Tintic Branch was to be included, but the application makes no mention that the branch (being the steepest trackage on Union Pacific) from Mammoth at mile post 3.22, to the mine at mile post 5.21, apparently had not been operated since at least 1937. Additional research is needed to find when LA&SL stopped using the former New East Tintic line, with its 6 percent grades and 30 degree curves.

UP stated in the application that traffic on the Mammoth Branch, from 1953 through 1957, in order for each year, consisted of 50, 42, 12, 40, and 12 carloads. Records of the American Smelting & Refining Co., show that in 1954, of the 42 cars shipped, 40 cars went to the Asarco smelter at Murray in the Salt Lake Valley. Mammoth Mining Co., in its protest of the abandonment, showed the following shipments: 1955, 669 tons; 1956, 2274 tons; 1957 (to October), 629 tons. The mining company also stated that the dip in shipments in 1957 was due to a fire at the mine's surface workings, but that they had repaired the damage and were expecting an increase in traffic very soon. The application showed that between 1946 and 1952, there had been no traffic from the Mammoth Mining Co., despite continued promises of soon-to-materialize traffic. In the three years of 1949 to 1952, only one carload was handled, a single carload of inbound coal for the mine. Mention should be made here that in the 1947 application to close its Eureka agency, UP showed that a total of 28 cars were shipped from Mammoth in 1947, meaning that other mines were shipping ore, while the Mammoth mine was not. The last carload of local freight at Mammoth, other than ore, was handled in 1955.

At the time of the abandonment request in 1957, trains were run on an "on call" basis. A section crew was called out to perform any needed repairs to the branch prior to the train venturing on to the line, and again to repair any damaged caused. No service was provided during the winter months. Union Pacific had initially wanted to abandon the Mammoth Branch in 1948, but had withheld its application based on the mining company's promises of increasing traffic. This was during the times of heavy ICC regulation, so any traffic at all was usually justification to prevent abandonment.

ICC records show mining traffic on the branch in the 1953-1957 time period, with annual outbound averages of 26.6 cars and 1,498.8 tons, and inbound averages of 2.2 cars and 129 tons. (Such traffic levels of only one carload every other week, would in today's railroad industry, have been abandoned long before they reached such low levels.) No other mining company protested the 1957 abandonment because there were several truck dumps at other locations on either the Eureka Branch, or on the nearby Silver City Branch. The abandonment application for the Mammoth Branch was approved on May 21, 1958. Utah Division employee timetable No. 29, dated June 1, 1958, indicates both the Mammoth Branch and the former New East Tintic Branch, while the next issue No. 30, dated September 21, 1958, does not show these two branches. After the 1958 abandonment of the Mammoth Branch, freight service was provided as needed by the daily Tintic Local out of Salt Lake City.

LA&SL had received regulatory approval to close the Eureka agency in January 1948. D&RGW received regulatory approval to close its Eureka agency, elsewhere in town, in September 1961. In its application, D&RGW showed that in 1959, the Godiva mine had shipped 23 cars of ore, and Filtrol Corporation had shipped 21 cars of clay. The same shippers were active in 1960, when the Godiva mine shipped 88 cars of ore, and Filtrol shipped 137 cars of clay. The Godiva mine mentioned was located southeast of Eureka, and loaded cars at Eureka via a truck dump just east of town. Historian Sam Bass visited the area in 1964, and noted that only UP's Silver City Branch was still active, meaning that D&RGW had stopped operating into Eureka. He also noted that Halloysite clay (a catalyst used in oil refining) from the Dragon Consolidated mine was trucked to a loading ramp at Silver City to be shipped out via UP. Most of the trackage in Eureka was still in place in the 1960s; only the D&RGW spur to the Gemini Shaft was gone, which was the D&RGW spur from the summit east of town, to the Gemini Mine on the north side of Eureka. Although UP's Eureka Branch was still in place, Mr. Bass noted that there weren't any active mines right in Eureka in 1964, and that the last operating mine within the Eureka city limits, the Chief Consolidated, with its ore bins served by UP just west of Eureka, shut down in 1956.



The Eureka Branch was abandoned some time between April 1972 and August 1973. The Eureka depot was moved in the mid 1970s across the street and up the hill several hundred feet, and today houses the Tintic Historical Society. Compare this view with that on page 9. *-Vic Oberhensly*

By the 1960s, the only trackage in the area was D&RGW's Tintic Branch into Eureka from the east, and UP's Eureka Branch between Tintic and Eureka, and UP's Silver City Branch between Tintic and Silver City. The only traffic was from various truck dumps used by mines in the district, but only sporadically. As traffic from the district continued to decline, UP sought to reduce it costs in an area that brought little, if any, revenue. In a direct reflection of the decline, in November 1971, Union Pacific removed its agent from the depot at Tintic. Although the agent at Tintic no longer sold passenger tickets, or made train orders for passing mainline trains (Amtrak had taken over UP's passenger trains in May 1971, and CTC had been put in place between Salt Lake City and Caliente, Nevada, in 1948), he was kept busy with the occasional business on the Eureka and Silver City branches, the occasional passenger ticket for the flag stop at Tintic before Amtrak in 1971, and acting as the agent for Western Union for telegraph messages to and from all of the towns in the entire Tintic district.

Research has not yet found any specific information about the abandonment of the Eureka Branch, other than to note that UP received regulatory approval to remove its agent from Tintic in November 1971. The branch was abandoned some time between April 1972 and August 1973. The Eureka Branch is shown in Utah Division employee timetable No. 47, dated May 1, 1972, but in timetable No. 48, dated September 16, 1973, only the Silver City Branch is shown.

In the November 1971 application to close the agency station at Tintic, UP showed that in 1968, only 454 carloads were shipped from Tintic, all being lead ore tailings. These cars were likely from the extensive dumps of the Mammoth area mines, which with new, more efficient smelter operations, had become

almost as valuable as the original mine ores themselves. During 1969, only 438 carloads were shipped, including 13 cars of lead ore and 425 cars of lead ore tailings. No other traffic was moved, either inbound or outbound. No traffic was either shipped or received at Tintic during both 1970 and the first six months of 1971. In the same application, UP showed that clay loadings from Silver City were still a good source of traffic. For 1968, 1969, 1970, and the first six months of 1971, the road shipped 819, 618, 580, and 240 carloads of clay from Silver City.

The Silver City Branch is shown in UP system timetable No. 2 dated December 10, 1978, but is not shown in No. 3, dated March 9, 1980, meaning that the branch was abandoned sometime in the interim. In the December 1978 timetable, only 0.81 mile of the branch remained, indicating that only the wye at Silver City Junction remained, with a mile post distance of 0.48 mile, with another one-third mile being used either for car storage or to serve a trackside truck dump. After the last vestige of the Silver City Branch was abandoned in 1979, the daily local was renamed the St. John Local, a reflection of its destination at Tooele Army Depot, 42 miles north of Tintic.

While UP had abandoned operation of its Tintic branches by the late 1970s, the former D&RGW Tintic Branch remains in place as this is written in mid 2004, cut back from Silver City to Eureka in 1943. The agent was removed from the Eureka depot in September 1961, but the agency had been closed by special permission since January 1961, after the last shipping mine was closed in December 1960.

While the tracks remain in place in mid 2004, after 1985, D&RGW, and now UP after its control of D&RGW in 1996, only operated trains as far as the limestone quarry at Keigley (mile post 16.0), until Geneva Steel closed in 2001, taking away the need for limestone. Occasional traffic is still generated by the LDS Church's grain elevator at Elberta, at mile post 25.1.

WESTWARD ↓ — SILVER CITY BRANCH — EASTWARD ↑

LENGTH OF SIDINGS		Time Table No. 1 January 12, 1975	MILE POST	RULE 6(B)
CARS	FEET	STATIONS		
106	6005	TINTIC	0.0	PY
		2.4		
8	554	SILVER CITY	2.4	
		(2.4)		

Throughout much of the 1950s and 1960s, the branches out of Tintic, while they lasted, were noted in employee timetables as "additional stations" on spurs out of Tintic. In 1975, the Silver City Branch warranted its own timetable entry. *-Don Strack Collection*

The Shay Locomotives

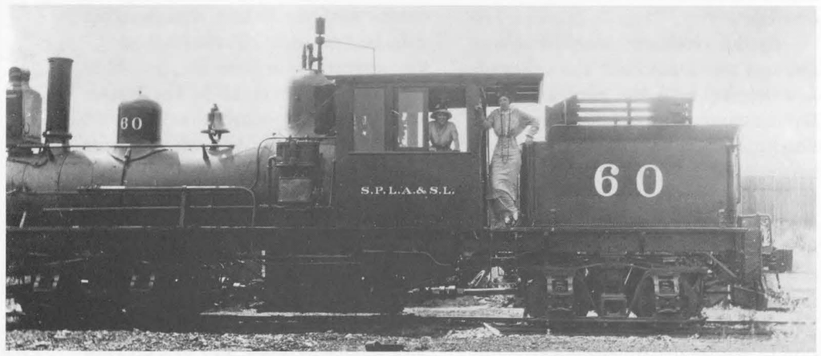
The first Shay for the Tintic District was New East Tintic No. 10, a small, 32-ton 2-truck design delivered in June 1896. It worked alone on the railroad, with its engine house being at the upper end of track at the Mammoth mine. OSL bought the New East Tintic line in 1900, and in January 1902 a new 65-ton, 3-truck Shay was delivered as New East Tintic No. 11.

The Tintic branches were included in the June 1903 sale of OSL lines to San Pedro, Los Angeles & Salt Lake, and in March 1907, SP, LA&SL accepted delivery of a new 80-ton, 3-truck Shay. Lima records show this as an "80-Ton Shay, 3-Truck, Special." It entered service as SP, LA&SL No. 61. At about the same time, New East Tintic No. 10 became SP,LA&SL No. 60, and New East Tintic No. 11 became SP, LA&SL No. 59.

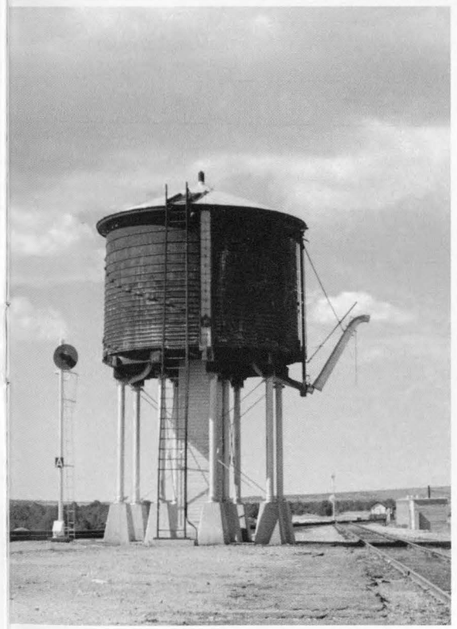
No. 59 had an extended wagon top boiler design, but No. 61 had an unusual straight boiler, which may or may not be the reason for its "Special" designation in the builder's records. All three originally burned coal, but No. 59 and No. 61 were converted to burn oil at some unknown time. Records of builder Lima show that No. 61 was in fact built for a lumber company with operations in the Black Hills of South Dakota. The Shay was apparently delivered to Rapid City on January 15, 1907, but was returned to Lima for unknown reasons. It was then sold to the San Pedro and delivered to Salt Lake City on March 4, 1907.

As already mentioned, New East Tintic had its engine house at the Mammoth mine. With OSL ownership, a second Shay in 1902, and the completion of a new Tintic station on the new Leamington Cutoff in 1903, a new three-stall all-brick engine house was completed at Tintic. The architecture of the new brick engine house at Tintic looks very similar to the roundhouses at Salt Lake City, Lynndyl, and Milford, also completed at about the same time.

During a conversation in June 1977 with the author, Frank Acord, UP's Superintendent of Motive Power & Machinery, remembered many parts of his initial service on UP as a mechanic at both Lynndyl and Provo, Utah. According to Mr. Acord, UP's Shay locomotives at Tintic were always maintained at the engine house at Tintic. For more extensive repairs such as boiler work or

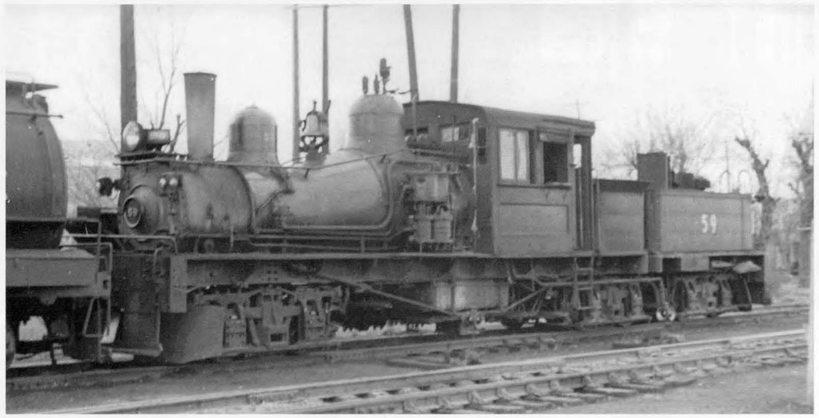


Here we see the original New East Tintic Railway's Shay locomotive. Delivered in 1896 at the same time the road was completed, this locomotive originally carried Number 10. With the sale of the road to OSL in 1900, it retained its original road number. In 1903, the road was sold to the San Pedro, Los Angeles & Salt Lake and soon became that road's Number 60. By 1918, the locomotive's small 32-ton size became a hindrance, compared to two newer, and larger Shays, and it was sold to a lumber company in Washington. - *Don Strack Collection*



The Tintic depot, a standard 24 by 64 wooden depot completed in 1903, was sold and moved less than one mile from its original trackside location. It exists today, cut in half, with the baggage end being used as a garage at a gas station and convenience store at the junction of nearby highways Utah 36 and U.S. 6. The waiting room end of the depot was also moved and is used today as part of a private residence in the same vicinity. These photos date from 1959. *-Vic Oberhansley photos, Don Strack Collection*

Delivered as New East Tintic Railway Number 11, here we see the same locomotive as LA&SL 59 at Cache Junction, Utah, in November 1948, en route to its final destiny at Pocatello. - *Emil Albrecht Photo, James L. Ehernberger Collection*



LA&SL 59 at Cache Junction in November 1948. Notice the snowplow on the locomotive's front truck. Similar devices were also mounted on the rear truck. - *Emil Albrecht Photo, James L. Ehernberger Collection*

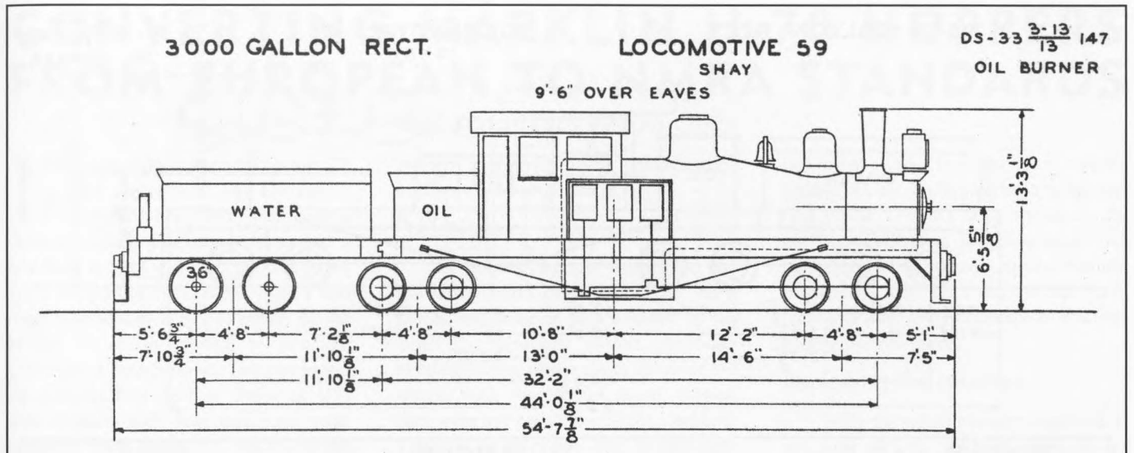
Another view of LA&SL 59 at Cache Junction. Note connecting rods are removed. - *Emil Albrecht Photo, James L. Ehernberger Collection*

wheel work, they were sent to the shops at Lynndyl, where there was large brick roundhouse, with several add-on all-concrete stalls. Mr. Acord remembered that during the 1940-1943 period that he worked at Provo, the Shay locomotives came to the Provo Joint Shops (with Utah Railway) several times for wheel and boiler work because UP had closed the shops at Lynndyl.

Tintic area historian Sam Bass recalls old-timers in the Tintic area telling him that UP used "sunflower" stacks on their Shays in the summer for fire protection purposes. During winter and spring they changed to the "shotgun" stacks. While the memories are not in doubt, this may actually be in reference to the change in fuel, from coal to oil.

The former New East Tintic No. 10, later renumbered to SP,LA&SL 60, was retired in 1918 because it needed a complete rebuilding, having been in service for 22 years, since 1896. The locomotive's usefulness was questionable because it was such a small, underpowered locomotive, preventing its use on the other Tintic branches. It was sold in November 1918 to the Lincoln Creek Lumber Co. at Galvin, Washington (later at Centralia), who also owned a Climax geared locomotive and two other Shay locomotives. Lincoln Creek's railroad was abandoned in 1932, but no further disposition for the locomotive is known.

William Kratville, in his landmark 1959 *Motive Power of the Union Pacific*, states that both LA&SL Shay locomotives, No. 59 and No. 61, were rebuilt at Pocatello in the 1920s. Records from

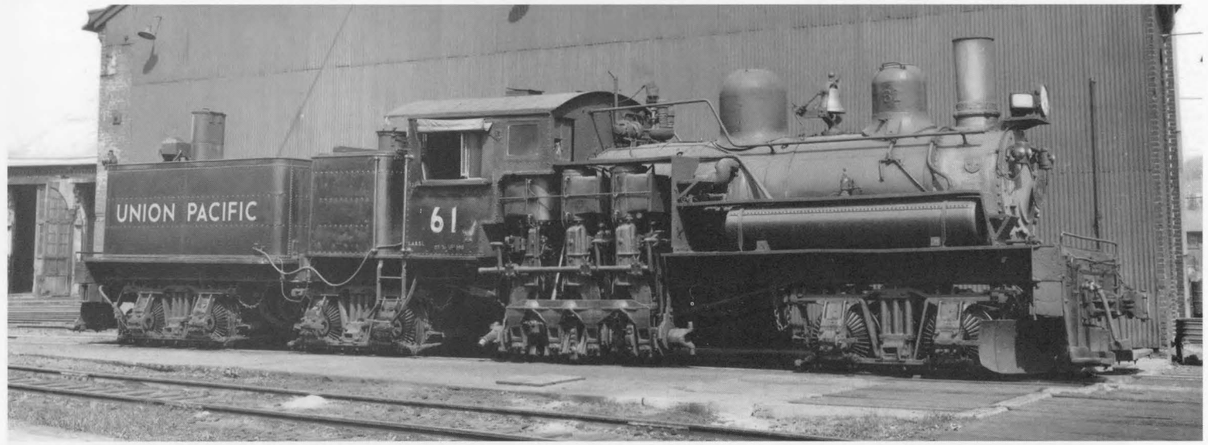


TENDER			ENGINE												
WATER CAP	FUEL CAP		BOILER		FIRE BOX		TUBES			EVAPORATING SURFACE SQ. FT.				
GALLONS	OIL		I. DIA.	PRESS	LENGTH	WIDTH	NUMBER	DIA.	LENGTH	TUBES	FLUES	FIRE BOX	ARCH TUBES	TOTAL
3000	1349 GALS		46 7/8"	175 LBS	72 1/4"	43 7/8"	169	2"	12'-0 3/4"	1055		122		1177.
TENDER WT.		WT. ENG & TEND.	SUPERHTR SURFACE SQ. FT.		GRATE AREA SQ. FT.	CYLINDERS		WHEEL BASE		WEIGHT IN WORKING ORDER-LBS				TOTAL LT. WEIGHT ENGINE
LIGHT	LOADED	LOADED				DIA.	STROKE	DRIVING	ENGINE	ENG. TR.	DRIVERS	TR. TRUCK	TOTAL	
		181800				13"	13"	32'-2"	32'-2"		146800		146800	
TENDER FRAME	TRUCK	BUILT	DRIV. WHEEL DIA.	MAX. TRACTIVE EFFORT	ADHESION FACTOR	AIR PUMP	VALVE GEAR							BUILT
		LIMA 1902	33"	26900	5.42		STEPHENSON							LIMA 1902

	A	ISSUE	DIAGRAM
	7-1-38	DATE	L-1-1

RING GEAR 37 TEETH
PINION 18 TEETH

UNION PACIFIC RAILROAD CO.
RESEARCH DEPARTMENT



Lima Locomotive Works show that No. 61 received a new boiler in October 1926, along with numerous other new parts. In August 1944, Lima records show that No. 61 received numerous new parts for its trucks, along with some work on its engine unit. This recent rebuilding for No. 61 likely explains its sale four years later, rather than being scrapped, as was No. 59.

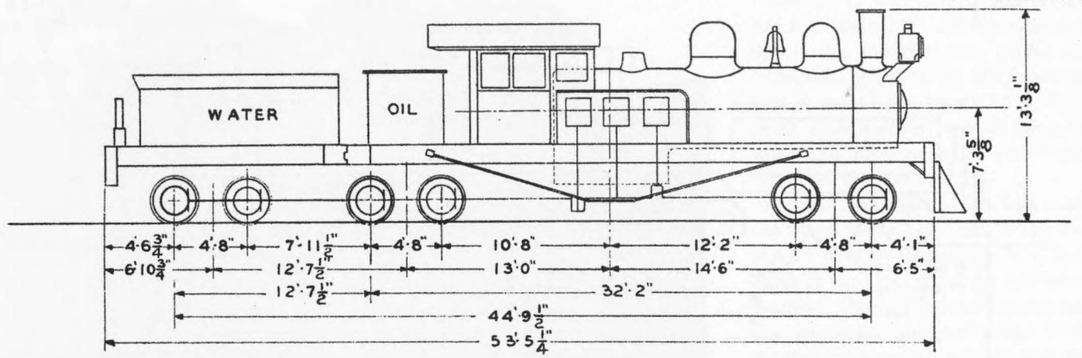
UP retired the last two remaining Shay locomotives in September 1948 (No. 61) and February 1949 (No. 59). No. 59 was moved to Pocatello in November 1948, where it was retired and scrapped in mid February 1949. No. 61

LA&SL 61 was retired in 1948 and sold to a lumber company in Oregon. Shown here in September 1948 en route at UP's Albina (Portland), Oregon, engine house, the locomotive was shipped with its connecting shafts removed. Note the special straight boiler, a design that seems to be unique among all Shay locomotives. - *Don Roberts Photo, James L. Ehernberger Collection*

3500 GALLON RECT. LOCOMOTIVE 61 DT-36 $\frac{3-13\frac{1}{2}}{15}$ 200

SHAY

OIL BURNER



TENDER			ENGINE											
WATER CAP.	FUEL CAP.		BOILER		FIRE BOX		TUBES			EVAPORATING SURFACE SQ. FT.				
GALLONS	OIL		I. DIA.	PRESS	LENGTH	WIDTH	NUMBER	DIA.	LENGTH	TUBES	FLUES	FIREBOX	ARCH TUBES	TOTAL
3500	1366 GALS		58 1/2"	200 LBS	78 1/2"	65 1/4"	224	2"	11-11 1/4"	1389		136		1525

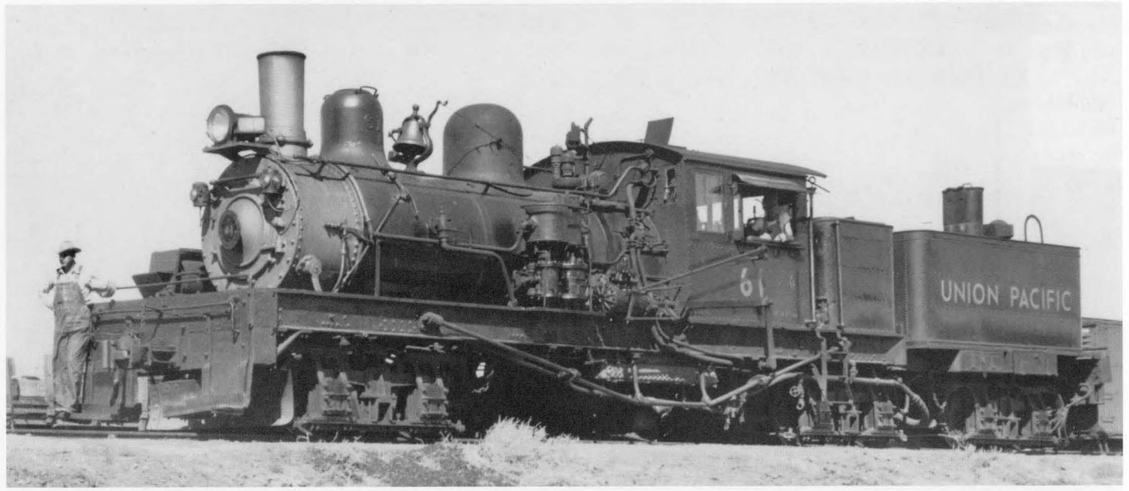
TENDER WT.		WT. ENG & TEND. LOADED	SUPERHTR SURFACE SQ. FT.	GRATE AREA SQ. FT.	CYLINDERS		WHEEL-BASE		WEIGHT IN WORKING ORDER-LBS.				TOTAL LT. WEIGHT ENGINE
LIGHT	LOADED				DIA.	STROKE	DRIVING	ENGINE	ENG. TR.	DRIVERS	TR. TRUCK	TOTAL	
		200100			13 11/2"	15"	44-9 1/2"	32-2"		200100		200100	

TENDER FRAME	TRUCK	BUILT	DRIV. WHEEL DIA.	MAX. TRACTIVE EFFORT	ADHESION FACTOR	AIR PUMP	VALVE GEAR			SUPERHTR					BUILT
		LIMA 1907	36"	35100	5.70		STEPHENSON			TYPE					LIMA. 1907*

	A	ISSUE	DIAGRAM
	7-1-38	DATE	L-1-2

RING GEAR 37 TEETH
PINION 18 TEETH
*NEW BOILER APPLIED 1927

UNION PACIFIC RAILROAD CO.
RESEARCH DEPARTMENT



In this seldom seen view of the left side of a Shay locomotive taken in July 1948, we see an unusual mechanism for operation by the fireman. Its purpose is not known, but it appears to be a cylinder-actuated mechanism situated under the cab floor. - *J. H. Conant Photo, James L. Ehernberger Collection*

was sold to Oregon-American Lumber Co., at Vernonia, Ore., in September 1948. Long-Bell Lumber took over the Oregon-American operations and the old UP No. 61 became Long-Bell No. 107. It was scrapped by Long-Bell Lumber Co., in 1956. ■

The author thanks Sam Bass, Jim Ehernberger, George Pitchard, James Belmont and Jim Harrawood for their assistance with this article.

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Summer 2005
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TINTIC SUBDIVISION • UP SHAY LOCOMOTIVES
CONVERTING MÄRKLIN H-70 HOPPERS

The Streamliner

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The Streamliner

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On the Cover

On June 21, 1947, Shay 59 switches in the background as UP 836 on the westbound *Pony Express* prepares to top off its fuel supply. In the 1970s, the Tintic depot was retired and moved less than a mile from its original location, and today is still in existence. - *F. J. Peterson Photo, Donald Duke Collection*

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UP Extra 6921 West at MP 53 on the east slope of Cajon Pass February 24, 1971. *-Tom Hotchkiss photo, courtesy Chard Walker*