Fair Market Valuation Report

Sugar Cane Train - Lahaina Railroad LLC

State of Hawaii

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Appraisal Description

Stone Consulting, Inc. was retained by Lahaina Railroad LLC to perform a "Fair Market Valuation" (FMV) for the physical assets of the tourist railroad operation on the Island of Maui known as "The Sugar Cane Train". This operation has 5.12 miles of 3ft gage track with associated locomotives, rolling stock (rail cars), maintenance equipment and tooling. The railroad is located between Lahaina and Puukolii and serves as a passenger carrying train for entertainment purposes catering to the tourist industry. It uses real operating period steam locomotives and recreated passenger cars reminiscent of historic Hawaiian cars of years gone by on a narrow gage railroad using rail salvaged from the long disappeared Kahului Railroad. The purpose of this appraisal is to determine the Fair Market Value of the assets of this operation for financing and collateral purposes. It does not look at the going concern value of the operation as a business. Each asset was inspected and identified and appraised as to value based on the most appropriate criteria; which could be scrap, or value of similar assets found by comp sales, or other applicable means. As condition is an important criteria, as much conditional information as was practical was obtained in order to provide the most accurate values. The valuation is based on pricing for April 2015.

Background

This railroad was built specifically for the purpose of entertainment; hauling tourists on a nostalgic rail ride. When it was built during 1969 – 1970 it was able to by-pass certain regulatory requirements due to the nature of its operation and has survived in that form and context since construction under several different owners. There are approximately 5.12 miles of track as scoped out including main line, sidings and yard tracks. Most of the rail is from the defunct Kahului Railroad on the other side of the island, with equipment either brought in from the mainland or built locally as noted.

As an operation remote from areas of supply and operating historic steam locomotives, it has developed a self sufficiency which gives it a larger than expected fixed asset base than many other tourist rail operations.

Generally the equipment last in use was noted as being well maintained, although out-of-service equipment was being stripped for parts or otherwise neglected as surplus. The rail,

although old, is of a premium section and shows little wear, even after almost 100 years and under the expected future use should have at least as much wear left in it. Many of the wooden ties are ready for replacement although there can be recognized some salvage value in what percentage of good ties were noted. It is also of note that the County of Maui will take as landfill used deteriorated ties negating a disposal cost.

Although not the intent of this appraisal, this property has a good going concern potential based on its location and potential for growth as part of a larger development and plan than just as a stand alone rail operation. An NLV was also not undertaken, but due to the marketability of key assets such as the locomotives and rail and the ability to dispose of large quantities of rotted cross ties at zero cost there is good residual value as well.

On-Site Inspection

Track and Structures Appraisal

Fair Market Value as used in this report pertaining to track has the generally accepted definition of "salvaged value less take up" of the physical plant reflecting April 2015 market value of the assets. A value has been established based on contract scrap market price and used track values, which the consultant believes to be a fair and reasonable assessment for the value of the ferrous material.

The following is a description of the methodology used for estimating the value of the track assets. It is desirable to first define the physical assets of the track that are considered to have the greatest potential value. Track is considered as a structure that is composed of the ferrous metal components such as rail and other track material (OTM).

The initial step in estimating track value is to assemble an inventory of track materials by geographical location, which was generated from the site visit. In developing the track inventory, it is separated into groupings by pattern weight of the rail and the documented and verified lineal feet associated with each weight. The next step is to calculate the estimated total weight of ferrous metal for rail and OTM for each weight of rail. This was accomplished through the reports and data given to Stone Consulting, the inspection trip and a review of pictures taken during the trip.

Inventory and Condition

A systematic on-site inspection was done of the rail track, locomotives, rolling stock, vehicles, tooling and equipment. These assets were indentified and inspected for condition and market value in order to determine an overall Fair Market Value of this operation. Stone Consulting, Inc. did not have in their scope to value buildings or real estate and those costs are not included in the totals derived.

Rail Valuation

All rail was a generally consistent 60 pound / yard section of profile ASCE rolled in the 19-teen to 20's era. Repeated attempts to find mill stampings on the web were unsuccessful due to age, rust and vegetation. It is known that most of this rail was salvaged from the defunct Kahului Railroad which was 60#AS rail and this section would have been rolled as an open hearth section consistent with what was observed during the site visit. The condition of the rail was very good for the age and little head wear, wastage, warping or other defects were noted making it relay quality Class I or Class II.

Rail lengths varied from 33 ft per stick to lesser lengths. Most mill specs state that 60AS was rolled in 30 ft sections but specific measurements were made on various pieces and 33 ft sticks are certainly common. Due to the various sizes of rail length it was decided that a 30 ft. length would be used to calculate for OTM (bars and bolts). Joint bars are a mixture of 20" and 24" toe style bars with 4 bolts per bar. Tie plates consisted of 6"x8", 7"x9" and 8"x9" plates with two spikes per plate in tangents and 3 spikes/plate in curves. Spikes were 6" but most were noted as very wasted and it might be that they were actually reused spikes from the Kahului operation instead of the generally accepted practice of using new. An allowance has been taken due to this wastage. Track bolts are ¾" diameter x 4-1/2 length with nuts and lock washers. No missing bolts were noted in the survey sections.

Rail / Track Tabulation

Track Segment	Distance feet	Distance miles
Main Line: Lahaina to Kakaalaneo Drive	22,853	4.33
Lahaina siding	420	0.08
"The Siding"	350	0.07
Kaanapali Stub Track	230	0.04
Puukolii Yard (inclusive of wye, loop spur, and yard tracks)	3165	0.60
TOTAL	**27,018**	**5.12**

These track lengths were observed on the site visit and correlated and measured using Google Earth to obtain as much accuracy as possible.

Rail and OTM (Other Track Material) Weights

Rail and OTM Weight Calculations

	QTY	Unit	Conversion to Miles	net tons / mile	Total Net Tons	FMV / Ton	Total FMV	Notes
Rail	27,018	feet	5.117	105.6	540.36	$ 500	$ 270,180	Relay Rail Reuse
			Weight (lbs) EA Size 6x8	**Tie Spacing**	**Total Net Tons**			
Plates	27,518	EA	6.55	24"	108.15	$ 500	$ 54,073	Assuming 20% of plates are larger than 6x8
incl + 500 in inventory								
			Weight (lbs) per pair Size 20"	**Rail Length (feet)**	**Total Net Tons**			
Bars	1801	Pairs	27.2	30	29.40	$ 500	$ 14,698	Assume 20% are 24" bars at 32.5 lbs / pair
			Weight (lbs) per pair Size 3/4 x 4-1/2	**Bolts / Pair**	**Total Net Tons**			Weight estimate to include lock washer
Bolts	7205	EA	1	4	3.6024	$ 214	$ 771	
			Weight EA (lbs) - 20% wastage	Avg. Spikes / Plate				
Spikes	60,791	EA	0.65568	2.25	19.93	$ 214	$ 4,265	Assuming 24" Center Ties
								2 / tie on tangent and 3/ tie on curves
								Wastage at 20% deduct
			Weight EA (lbs)		**Total Net Tons**			
Turnouts	11	EA	9680		53.24	$ 214	$ 11,393	Includes frogs, points and clips and bolts
							TOTAL FMV	
TOTALS							**$ 355,380**	

Rail Values

In discussions with vendors (Kovalchick Salvage and Kimes Steel & Rail) it was determined that there is a market for 60AS rail in the underground mining industry which is greater than the scrap price of the rail. Several years ago this price/net ton for 60AS was in the $700/net ton range but in recent months the price of new steel and scrap has gone down considerably. New 60AS that is being rolled is only selling for $600/NT which is the cap limit for any relay rail. At this time both Kimes and Kovalchick would pay $500/ NT delivered to their facilities in the Eastern US. As this would be a baseline cost FOB Vendor for any 60AS relay rail it is therefore deemed to be the FMV price per ton of the rail on site in track inclusive of the bars and plates which would be reused. Spikes and bolts would not be reused and would only command scrap pricing.

An additional 500 tie plates were added to the plate count to represent the 500 plates in inventory.

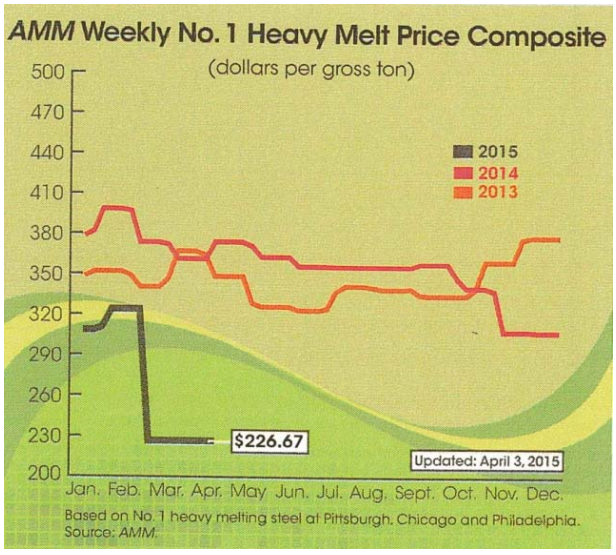
A Note About Scrap Prices

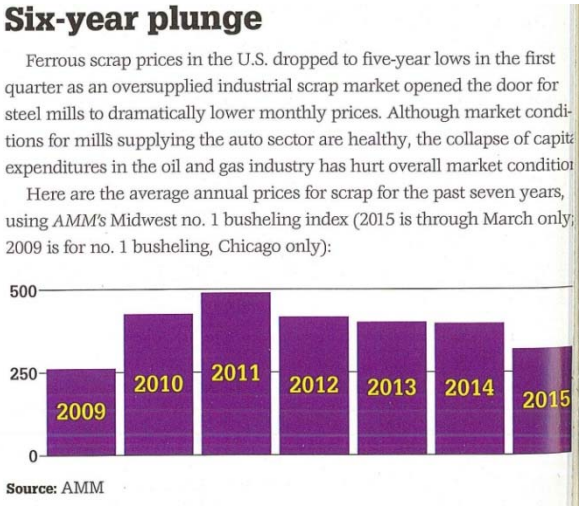
The scrap ferrous steel market peaked in 2011 and has been on a downward trend since that time. In the first quarter of 2015 prices fell almost $100/net ton, the highest drop since the 2008 recession according to the April 2015 *American Metal Market Scrap Edition* - Volume 2, Issue 2. This affects not only scrap metal values of the track, but also affects the value of used rail and OTM (other track material) such as good joint bars and plates. Along with the slide in scrap prices, the worldwide price of scrap has fallen due to

lessening demand from China and excess inventories in some cases that has forced down the price of new rail which sets the cap for used rail pricing. Therefore, it is expected that prices are at an all time low at this time and expected to rebound sometime in 2016. This situation greatly affects the values determined in this report.

At the time of this appraisal, no local dealers would quote a price for ferrous scrap in Hawaii. Calls were made to Schnitzer in Honolulu and to Hammerhead in Kihei, Maui. Although dealers were not quoting pricing due to the loss of market demand, the steel still has a value. In order to determine a value, the price of rail crops and #1 bundles was found using American Metal Market (AMM) Pricing for March 2015 and the average premium determined for the rail crops. Then that premium was applied to the AMM quoted pricing for Los Angeles export #1 heavy melt. This total was then converted into net tons to determine a realistic Fair Market Value of the rail and OTM scrap material.

Scrap Pricing Index							
AMM Pricing in Gross Tons							
	Rail Crops	#1 Heavy Melt	Date				
Chicago	$ 285	$ 225	Mar-15				
Cleveland	$ 370	$ 237	Mar-15				
Philadelphia	$ 325	$ 220	Mar-15				
Pittsburgh	$ 355	$ 235	Mar-15				
Average	$ 334	$ 229					
Price Delta	**$ 105**	Difference in average pricing between Rail Crops and #1 Heavy Melt					
LA Export Price of #1 Heavy Melt			$ 135	Mar-15			
Add Avg. premium for rail crops			$ 105				
Appraised Price / Gross Ton - Maui			$ 240				
Appraised Price / Net Ton - Maui			**$213.84**				





AMM Graphs Depicting Recent Scrap Market Pricing

Track Ties

Ties are generally 6x8x6 foot accommodating the 3 foot track gage. Although there are variations, especially with newer tie installations, generally it was found that tie centers are at 24".

Based on the 24" centerline and 27,018 feet of track, there would be approximately 13,509 ties.

Tie Inspection Samples

Sample	Location	Good	Landsc	Junk	Total	Notes
1	Lahaina MP 0.1	53	33	24	110	110 count
2	"The Siding" MP 2.3	59	31	10	100	2.5% grade
3	Kaanapali MP 3.6	33	33	24	90	90 count - non-contiguous due to vegetation and ballast covering ties
4	Puukolii MP 4.5	16	36	48	100	Not contiguous due to loomotive matting, crossing planks and vegetation
5	Puukolii Wye	100	0	0	100	Track installed circa 2007
Totals		**261**	**133**	**106**	**500**	
Percentage		**52%**	**27%**	**21%**		

Tie FMV		
Feet of Track	27,018	of track
Ties Centers	24	inches
Number of Ties	**13,509**	
Relay Tie Total	**7,052**	
FMV / Tie	**$ 20.64**	
Total Tie FMV	**$ 145,544**	

Comps based on Stella Jones new tie price at $58.97 EA dated 3-23-15
with relay tie valued at 35% new
All other ties valued at Zero Cost due to disposal costs and regulations against re-use due to creosote treatment

Good ties are valued at 35% of the cost of a new tie of similar grade and treatment, lower than the typical 50% ratio as many of the good ties are better than 50% worn although they are still capable of reuse. These would be categorized as relay ties in the rail market if removed from the track and have a residual value. Approximately 52% of the existing ties would fall into this category. The remaining 48% are either marginal which would normally be assigned a landscape value or junk, meaning they are totally rotten with disposal the only option. Due to regulations in Hawaii regarding treated lumber, "landscape" ties could not be sold, and would have a zero value. Junk ties are normally assigned a negative value due to their need for disposal and associated costs, but it has been represented by Sugar Cane Train management that the County of Maui would landfill these ties at no cost and hence they are also assigned a zero value.

Turnout Inventory

Qty	Location	Purpose	Rail Size / Type	Point Length	Frog Angle	Frog Type	Notes	Condition
1	Lahaina	Turntable Lead	60AS	13 ft	#6 Right	Bolted	Spring switch	Good Relay
1	The Siding - South	Runaround Track	60AS	10 ft	#6 Left	Bolted	High Switch stand	Good Relay
1	The Siding - North	Runaround Track	60AS	10 ft	#6 Right	Bolted	High Switch stand	Good Relay
1	Kaanapali	Stub track	60AS	10 ft	#6 Left	Bolted	Low stand / defective	Good Relay
1	Puukolii	Yard Lead (Wye to #4)	60AS	10 ft	#6 Right	Rigid Plate	High Stand	Good Relay
1	Puukolii Yard	Track #4 to Track #2	60AS	10 ft	#6 Right	Bolted	Low stand - parts missing	Relay
1	Puukolii Yard	Shop #2 to Shop #1	60AS	10 ft	#6 Right	Bolted	Harp Frame - Medium target	Good Relay
1	Puukolii Yard	Track #4 to Track #3	60AS	10 ft	#6 Right	Bolted	Weir D 20 Stand	Good Relay
1	Puukolii Yard	Tail of Wye	60AS	10 ft	#6 Left	Bolted	Spring switch	Good Relay
1	Puukolii Yard	North Leg and End of Track	60AS	10 ft	#6 Left	Bolted	Spring switch	Good Relay
1	Puukolii Yard	South Leg of Wye	60AS	10 ft	#6 Right	RBM	Spring switch	Good Relay

Total Turnouts – 11

All turnouts are in good relay condition with good rail, frogs and points, although some stands are defective or missing parts.

In discussion with various vendors, scrappers and suppliers there appears to be no market other than scrap for these 3' gage turnouts. Even the frogs which could be utilized in a standard gage track are too sharp of a turnout and are not desired. All turnouts are hence categorized as scrap and are rolled up within the Rail / OTM Inventory section.

Unused Track Hardware (Inventory)

Track Hardware (Inventory)							FMV	Comp Price
				Per 200# Keg	# of Kegs	QTY (EA)		KIMES STEEL & RAIL
Spikes - 5/8x6"				$ 188.00	8		$ 1,504.00	
				Per 100# Keg				
Spikes - 5/8x6"				$ 94.00	6		$ 564.00	
			Price EA					
Track Bolts	3/4 x 4-1/2		$2.50 EA with lock washer	$ 562.50	6		$ 3,375.00	1.85 / bolt
Washer	3/4"		$ 0.49			1000	$ 490.00	for 3/4 x 4" - no washer
								Washer - 3/4" price 49 cents
Unused ties			$ 58.97			160	$ 9,435	Stella Jones Quote 3-23-15
TOTAL TRACK HARDWARE (INVENTORY)							**$ 15,368**	

Unused track material held in inventory has value based on current market pricing. Market pricing was obtained from Kimes Steel and Rail, a supplier of light rail track products, and utilized for the basis of this inventory valuation.

Grade Crossings / Signal Valuations (ZERO VALUE)

One of the components reviewed in the valuation were the grade crossing signals.

New installations in the industry are normally federally funded under Section 130 money and require new material as standard criteria in order to best comply with FRA regulations under 49CFR Part 234. After reviewing the crossings in this project, it was determined that the crossings would not impact the FMV of the project as the installations are not fully Part 234 compliant and any scrap or resale value would offset the removal cost without significant profit or loss.

Lahaina Turntable

This is a relatively new turntable installed in 1987, built by Lovsted of Seattle, WA. It is a 48' diameter powered by an electric motor with control station and locking gear. Comp sales of turntables were not available as they are a specialized item that has not appeared on the market in recent years.

Considerable effort was made to track down the manufacturer and to understand more specifics of the turntable and the recent market, but to no avail. Due then to this lack of information, the primary value of the table can only be confined to the center bearing, gearing and running rail. An estimate of these components would conservatively be in the $10,000 range. Since the table is comparably small at 48' and probably designed for a 50 ton or less locomotive it is of small nature and not particularly of interest to most rail operators who would have much longer and heavier locomotives. Although the value of this asset could conceivably be in the $25,000 range, the nominal value set due to lack of comps or specifics is conservatively appraised by the value of those key components needed for the fabrication and installation of a comparable device used for turning around locomotives.

Locomotives

Locomotives

Number	Name	Type	Builder	Builders #	Date	Driver Diameter	Cylinders	Weight	Notes	Status
1	Anaka	2-6-0	Porter	7398	1943	36"	12x18	51000	Ex Carbon Limestone 0-4-0T #36 Built as 38" gage	Operable - 766 days left on 1472 insp.
3	Myrtle	2-6-0	Porter	7397	1943	36"	12x18	50500	Ex Carbon Limestone 0-4-0T #35 Built as 38" gage	Oprtable - 1138 days left on 1472 insp.
45	Diesel	0-4-0	Fate-Root Heath	6166	1959		Diesel	60000	Ex Oahu Railway #45	Operable but needs torque converter
5		0-6-2T	Baldwin	32816	1908	33"	12x16	51000	Ex Oahu Sugar #5	Display Only

Both steam locomotives were built for Carbon Limestone , an Ohio industrial operation, in February 1943 and were built to 38" gage 0-4-0T configuration. Modifications were made to backdate them in appearance and configure them to a more suitable condition for the operation in Hawaii, including converting them to tender instead of tank operation. Air brakes are SA-9 independent and A-9 automatic. This work was performed in 1970-71 as part of the initial opening of the railroad.

Boiler pressure is 180 psi.

Both locomotives have single stage air compressors and steam dynamos.

Locomotive #1 has a tender capacity of 500 gallons waste oil fuel and 2000 gallons water capacity.

Locomotive #3 has a tender oil capacity of 600 gallons and water capacity of 2000 gallons.

Both locomotives were in service at the time the railroad was shut down in August 2014. Form 4 Specification Cards, Form 5 Locomotive Service records and recent inspection records were reviewed.

Wheels on both locomotives are in very good condition.

A washout plug was pulled on #1 and the interior was found to be very clean evidencing good maintenance and boiler water treatment.

Overall they both appear in very good mechanical condition.

Form 5 records were reviewed and are the criteria used for the basis of the appraisal as they denote the number of days a locomotive may remain in service before its next major boiler inspection. A general baseline FMV is set for the locomotives and a deduct taken off pro-rated on the remaining time left on the 1472 inspection. An estimate by Kelly Anderson, Vice President of Motive Power, Equipment & Shops at the Strasburg Railroad, a leading steam locomotive contract repair facility, are that a Form 4 and boiler re-tube would be in the $150,000 range for these locomotives. Several other contractors came in at a lesser cost. The pro-rated time left would be applied to this 1472 day inspection cost and that is the deduct off the baseline cost of a locomotive fresh out of 1472 inspection. In other words, remaining operating time is prorated from a base locomotive value to determine the actual FMV.

Defining Baseline Cost

John Rimmasch of Wasatch Railroad Contractors estimates that a 36" gage locomotive in operating condition compliant with FRA Part 230 should command no less than $250,000 and no more than $750,000. This is consistent and actually on par with standard gage locomotives, and the major difference being utility as related to size. However, no sale has yet been documented in recent years of over $500,000 for any operating steam locomotive. The larger engines still existent and operating are on operations that are in need of a locomotive of minimum tractive effort and horsepower and small locomotives in the 25-35 ton range generally are too small. The major market in the past for small locomotives has been Disney for their California and Florida amusement ride operations and Busch Gardens. Currently, there have been rumors that Disney may be phasing out their 3' gage propane burning steam locomotives and the general market for operating steam in the 25 - 35 ton range is very small and specialized, but however does exist.

TranSystems did a steam locomotive appraisal in October 2009 and came up with a mix of standard and narrow gage locomotive transactions and locomotives for sale. The range was $44,000 asking price for a non-operating standard gage ex-Military switcher to $420,000 for a rebuilt nearly new Chinese SY class 2-8-2. A former Kahului Railroad narrow gage 2-6-2 #12 sold in May 2005 for $175,000. The asking price had been $250,000 and the locomotive was operable but in poor condition. This locomotive was

considerably larger than either Sugar Cane Train Locos #1 and #3. Most documented steam locomotive sales have been discounted from 30% to 37.5 % from asking price which is in itself a factor of the limited market.

Based on these sales statistics, Wasatch estimates, current asking price for 3' gage locomotives on the market much bigger than the Sugar Cane train engines and the discount factor it would be reasonable to assume a base FMV of $325,000 for a locomotive in good operating condition with full 1472 inspection and good boiler and running gear.

Using this baseline, an estimated $80,000 1472 inspection cost and the discount factor results in the following:

Locomotive	Base FMV	Service Days Left	Percentage of Service Days Left	Cost of 1472	Percent in $ of 1472 used	FMV
1 "Anaka"	$325,000	766	52.04%	$80,000.00	$38,370	**$286,630**
3 "Myrtle"	$325,000	1138	77.31%	$80,000.00	$18,152	**$306,848**

Diesel #45 is operable but only in very light duty as it has a defective torque converter. It has a Caterpillar C9 Industrial Engine installed in 2005 and burns #2 diesel. It has dual controls (only right side operable) with an A-2 independent brake and an A-9 automatic brake. Wheels are in good legal condition and no other major mechanical defects were noted other than the defective torque converter. 3' foot gage diesels are very rare with only a few examples available. White Pass & Yukon in Alaska had some big road engines rebuilt in Seattle about 10 years ago, Sumpter Valley RR in Oregon bought a locomotive from Georgetown Loop about the same time and several U.S. 3 ft gage operations were looking for relief diesel power also in the last ten years including Cumbres & Toltec Scenic in New Mexico where scoping went as far as the Philippines, Central America and Mexico. Although not well adapted to operation on a daily basis on the Sugar Cane Train, this locomotive has some appreciable value. Comp sales can only be based on standard gage equipment as sales of 3 foot gage diesels are rare due to their scarcity as mentioned. Comparable standard gage locomotives have sold for as little as $22,000 in unrebuilt condition up to $40,000. Due to the defects noted in the torque converter on #45 and the limited market which makes a high demand price only when a buyer is looking, it is the opinion of the appraiser that this locomotive would have an FMV of $35,000.

Locomotive #5 seems to have some disputed history depending on the research source checked but is most probably former Oahu Sugar #5 built by Baldwin in 1908 as construction #32816 and later sold to Travel Town in California in 1954. It was repatriated to Hawaii by Willis Kyle in the 1970's. At one time it was scheduled to be rebuilt but the replacement boiler (still on property) was defectively engineered and constructed and the engine sits at Lahaina as a display hulk with many pieces missing and a non-rebuildable boiler. It has value as an historic Hawaiian locomotive and as a saddle tank steam locomotive of 3' gage which gives it local historic value but the FMV realistically would be just scrap value. The cost to restore it to operation would be considerable. Therefore, a

core scrap value of $5,453.00 is assigned based on a scrap price of $213.84/ton based on the weight 25.5 tons.

Total Locomotive FMV Summary

Summary of Value	
Number	**FMV**
1	$ 286,630
3	$306,848
45	$35,000
5	$ 5,453
TOTAL	**$ 633,931**

Rolling Stock

Rolling Stock								
Number	**Type**	**Seating**	**Builder**	**Date**	**Gen-Set**	**Status**	**Notes**	**FMV**
101	Coach	48	Keystone / Harliss	1970	No	in service	Has passenger style trucks	$38,000
102	Coach	48	Keystone / Harliss	1970	No	out of service	Partially Stripped / Needs Overhaul to be serviceable / Body Rot	$25,000
103	Coach	48	Keystone / Harliss	1971		out of service	Needs Overhaul	$25,000
104	Coach	48	Keystone / Harliss	circa 1971	No	out of service	Heavily Stripped / Needs Overhaul to be serviceable / Body Rot	$20,000
105	Open -enclosed A/C	44	LK&P	later than 1973	No	in service	Provision for Gen-Set but not installed	$40,000
106	Coach	48	LK&P	later than 1973	No	in service	Red Coach with Freight Trucks	$35,000
107	Coach	48	LK&P	later than 1973	Yes	in service	Yellow Coach - with generator	$39,000
108	Coach	40	LK&P	later than 1973	No	out of service	Stripped - not serviceable / Poor Roof	$25,000
109	Coach - Handicap	24	LK&P	later than 1973	No	in service	Equipped with Rincon Wheel Chair Lifts and Conductor Station	$42,500
Flat	MoW Flat	x	ACF?	circa 1942 - 43	x	in service	Maintenance of Way use - ex Oahu Railway, probably ex Military	$ 6,500
Hopper	Hopper	x	unk	circa 1910	x	Display	Wine hopper gates - 3 bay hopper - Nice interpretive piece	$ 6,000
Qty - 3	30' Flat Car Frames		Estimate $3250 EA				*Frames that could be used to construct new 3' gage passenger cars	$9,750
	* - As these frames can serve as a frame for new car construction, their worth is more in line with that value than as scrap weight as frame template or frames for 3ft gage cars are difficult and costly to come by and to fabricate new would be costly and in line with the estimated FMV of these used frames. Valued as 50% of the value of an operable flat car.							
TOTAL ROLLING STOCK								**$311,750**
For Comps see Wasatch Rail Comp Sales letter dated 4-2-2015, Ozark Mountain Equipment Sales and WP&Y R'wy letter for new coaches								

Passenger cars 101 – 104 were built by Keystone in Irwin, PA utilizing old flat car frames to which were constructed bodies of Cortensteel and molded fiberglass with operable vertical sliding windows. The coach bodies were constructed by Harliss Specialties of Pittsburgh, PA and equalized passenger trucks were obtained from the East Broad Top Railroad where the equipment went through shake down testing prior to shipment to Hawaii. The first 2 coaches arrived with Locomotive #1 in 1970 with coaches 103 & 104 arriving sometime later with Locomotive #3. Coaches 105 – 109 were built at a later date by the LK&P (Sugar Cane Train) at some later point according to the current railroad General Manager Iolani Kaniho. They differ from the earlier cars in having an old style freight car truck and bodies / frames that do not include truss rod construction. These cars are rather unique and

significant to operation in Hawaii as they were designed to resemble the early Hawaiian railroad passenger cars known as Kalakaua coaches of the late 1800's.

As passenger cars of this gage are rather rare and must either be rebuilt from older cars or built new they have a value for those operations utilizing 3' gage equipment. There are three 30' flat car bodies in inventory which are probably ex Oahu Railway and possibly ex-military cars from WWII. The value of these cars exceeds any scrap price in that they could be utilized as frames for new or replacement passenger car construction. As the railroad regains its footing as a premier tourist attraction they could be used for additional capacity, first class cars or other specialty cars for food vending or gifts as an example.

While there are a number of comp sales to draw from, most do not directly correlate to the simple semi-open cars of the Sugar Cane Train. New cars have been quoted for as much as $400,000 but these are fully equipped to a luxury level with fully compliant and modern safety appliances. The Sugar Cane cars are old conversions of obsolete flat cars. Used cars have been estimated by industry experts as 50% the cost of new built cars quoted in the $85,000 to $175,000 range. However, again, with the obsolete appliances of the Sugar Cane cars, general condition and limited and specialized market, a conservative estimate of the Fair Market Value would be at the low end of this estimate even though there is a proven market for new high end cars that have been built by Hamilton Manufacturing of Burlington, WA for the White Pass & Yukon Railway in the $200,000 range. Therefore, a baseline FMV was determined to be $42,500. Coach 109 was determined to meet this minimum baseline as it has wheelchair lifts for handicapped accessibility and a conductor station. All other cars were prorated on this baseline with value given to the Coach 105 (open/enclosed air conditioned car) and Coach 107 which appears in good condition and has a generator mounted under it for electric power. Other coaches in less presentable condition and repair were assigned correspondingly lower values.

Maintenance of Way flat cars were located with sales of 3ft gage flats happening in November 2011 as noted from Ozark Mountain Rail for $11,000EA and $9,500EA. Currently there are three flats advertised from $9,500 to $6,500 depending on condition and size. Based on this information it is estimated that the flat car at Puukolii yard in poor condition is valued at the lesser of these comps at $6,500. While inspecting the property it was noted there were three flat car frames piled up near the shop. Upon closer review it was decided to value these frames at 50% of the value of a complete car. This being that the frame is the core of the car and these frames could possibly be used as frames for building new passenger cars in the future by the Sugar Cane Train or others in need of cars at less than the new manufactured quoted prices. These are bare frames less trucks and appliances.

A hopper car was noted at Puukolii Station and that was also valued at the same price as the vintage narrow gage freight flat cars as the car is in reasonably complete condition and is an excellent example of a narrow gage hopper of circa 1910 vintage, being a nice

historical/interpretive piece or potentially a candidate for a vintage narrow gage interpretive freight train.

Motor Vehicles & Rubber Tire Equipment

Motor Vehicles & Rubber Tire Equipment

Year	Make	Model	Color	Type	VIN #	Miles	Condition	FMV	Notes
1992	Chevy	2500	Silver	Pick Up	1GCFC24HXNZ186825	104,005	Fair	$ 1,507	Not currently in use
1991	Ford	F-350 XL 4x4	White	Flat Bed	1FTHR36H9MKA66413	85,860	Poor	$ 1,382	Has tool boxes, hose reel and welder mounted on bed
1984	Dodge	Ram	Gray	Flat Bed	1B7MD34W9ES321858	67,671	Poor	$ 1,175	Has dual wheels and tool boxes mounted on flat bed
2003	Ford	F-250	Silver	Pick Up	1FTNF21L63EB18795	46,785	Very Good	$ 5,506	In Service
2005	Ford	F-250	Silver	Pick Up	1FTSX21505EC34126	88,713	Very Good	$ 14,284	In service
1981	GMC	6000	Green / Yellow	Bus	T16PAAV60B815	17,531	Poor	$ 1,125	Shuttle Bus - Poor condition - 22500 GVW
1980	Grove	9 Ton	Yellow	Crane		860 Hours	Fair	$ 6,800	Model RT58EX ? Operable but old - probably ex Military
2004	Case	580M	Yellow	Back Hoe		463 Hours	Very Good	$ 36,000	Has 12" and 24" bucket attachments - Only 463 Hours
TOTAL								**$ 67,779**	

FMV was determined by Kelley Blue Book valuation for private sale in the Lahaina, HI market for motor vehicles 1992 and newer. Older models were not available through that source. The 1991 Ford F-350 was determined through Edmunds.com for the same criteria as the newer models and the 1984 Dodge was priced through NADA in order to get a good comp valuation. FMV for the 1981 GMC bus was harder to come by and these vehicles tend to have both an old bus value as used for shuttles and for storage shed purposes. Several near comps were found, but generally buses older than 1991 were hard to find. Values between $1,155 to $3,000 were found for similar vehicles and a 25% discount was taken off the most comparable comp which matches an operable comp bus sale price to within $30.

The 9 ton Grove Hydraulic Crane is represented as operable and dates to 1980 and may have been ex – military according to Norm Jensen of RPK Industries, a noted crane authority. Several crane comps were found including the following:

- P&H 25 ton sold for $8,000 recorded 4-10-11 by Ozark Mountain
- Koehring Crane – sold for $26,000 recorded by Ozark Mountain 11-20-13
- Several Rail mounted Burro Cranes sold for $6,000 - $8,000 EA during 2011 – 2013
- Zadoon Equipment in Arnold, MD is currently asking $8,000 for an RT58

Based on this information the crane is assigned an FMV based on the latest and best comparable asking price of $8,000 with a 15% discount.

The Case 580M backhoe is a nice piece of equipment with a 24” and 12” bucket attachment. Three comps were found from $28,500 to $42,500. The best comp was an asking price of $33,525 FOB Honolulu for a machine with 3740 hours and the FMV was based on this price, with an increased adjustment due to the low operating hours while taking into consideration the other retail pricing as a guideline.

MOW Equipment

MOW						
QTY						
	Equipment	Mfg	Serial	FMV EA	FMV Exteneded	Notes
1	Tamper	Canron STMJE	5380051	$20,000	$20,000	Not operable
1	Track Broom				$ 5,000	Operational
	Tools					
4	Track Jacks			500	$ 2,000	no photo
1	Rail Drill - gas			1450	$ 1,450	no photo
1	Rail Saw - gas			750	$ 750	no photo
Misc	picks, shovels etc.			misc	150	no photo
	TOTAL MOW				$ 29,350	

There were two pieces of standard maintenance of way equipment, albeit being 3 foot gage. These are defined as on-track equipment that assists in the repair of the track and include the tamping machine and the track broom. Tooling consists of standard mechanical / manual tools for the necessary and specialized repair of railroad track and include the track jacks, rail drill, rail saw and miscellaneous picks, shovels, tamping bars and spike mauls.

The tamper price was generated off the price of a similar tamper for sale at Sterling Rail (http://sterlingrail.com) of Austin, Texas and is in conformance with generally accepted industry values. Condition was taken into account of the Sugar Cane Train tamper which needs considerable and somewhat unknown work and calibration to be placed back in service. With so many unknowns other than the fact that there is a market from time to time for 3ft gage tampers and MOW (Maintenance of Way) machinery the value was conservatively based on just under 50% of an operating tamper value.

A good comparable was not located for the track broom/washer. Although covered in vegetation making it difficult to inspect, it was represented as being operational. As such, and being a functional and integral part of the maintenance of way program, it has a value that represents a ballast regulator/broom of which in standard gage could be as much as $75,000. However, a broom/regulator has different and more multiple functions beyond a brooming or grooming ability associated with track surface and ballast maintenance so it is not a very good comparison. As such, an arbitrary and minimal value of $5,000 was set to this piece of equipment.

The other smaller mechanical equipment and tools are not just for 3ft gage but can be used for any gage as ordinary track tooling equipment. They were valued on generally noted and observed industry market prices from various suppliers throughout the United States as were the ordinary manual track tools consisting of picks, shovels and other more standard tools.

Equipment, Tooling & Supplies

Equipment & Tooling					
Qty	Description	Make / Model	Photo Reference	FMV EA	FMV Extended
1	Gas Welder - Stick	Lincoln Arc welder	1103	1367.5	$1,368
1	Electric Welder - Stick	Lincoln Wirematic 255	1098 - 1099	1080.5	$1,081
1	Wire Feed Welder	Miller XMT 304 CC / CV	1106 - 1107	1861.5	$1,862
1	Plasma Cutter	Thermal Dynamic EconoPak 50	1104 - 1105	300	$300
1	Band saw	Rigid (no model # - see photo #1108	1108	750	$750
1	Sand Blaster	Econoline - Photo 1109	1109	1000	$1,000
1	Cutting Torch set with cart, gages and tanks	Unk - photo 1111	1111	462.5	$463
1	Portable Generator - 5000 watt	Generac C 5000	1100	1575	$1,575
1	Arc Welder	Airco Easy Arc AC/DC 250 amp	1101 - 1102	300	$300
1	Milling Machine	Universal Kempsmith	1112 - 1113	10000	$10,000
1	Milling / Drilling Machine	MSC	1114	2200	$2,200
1	Vertical Drill Press	RIDGID	1116 - 1117	750	$750
1	Dual wheel table grinder	Jet	1118	109	$109
1	Dual wheel table grinder	Unknown	1119	87.2	$87
1	18" lathe	LeBlond	1120 - 1121	6700	$6,700
1	38" lathe	Niles	1122-1123-1124	10000	$10,000
1	Gantry Crane	unk	1125	1099.5	$1,100
2	Chop saws	DeWalt	1136	100	$200
2	Cordless Drills	DeWalt	1137	39	$78
1	large impact drill	Matco	1138	150	$150
1	small impact drill	Chicago Pneumatic		120	$120
1	Jack Hammer	Bosch with cart and tools	1139	$ 1,020	$1,020
1	Set of (2) Locomotive Jacks - Air	Duff - Norton Model 228	1127	1195	$1,195
1	Set 25 ton hydraulic jacks	unk	1132	1300	$1,300
1	Set 30 ton hydraulic jacks	unk	1132	1300	$1,300
Misc	Chains, slings and straps	various	1133-1134-1135	1500	$1,500
1	Air Shop Air Compressor	10 HP	1140 - 1141	$2,500	$2,500
1	Tool box with miscellaneous tools	Kobalt 20 drawer / various tools	1131	$ 2,450	$ 2,450
1	4 drawer Tool Box with tools	Craftsman box - various tools	1131	$ 187	$187
Misc	Assorted sockets and Wrenches	Various	1130	1500	$1,500
misc	Assorted pipe fittings / nuts / bolts	Various	1128 - 1129	1000	$1,000
1	Light Duty Utility Trailer	2 wheel ball hitch	1144 - 1145	550	$550
1	Jackson portable tamper gas powered	Jackson / Tecumseh	1146 - 1147 - 1148	150	$150
1	Heavy Duty Trailer	2 wheel for tamper	1148	850	$850
1	Riding Lawn mower	Husqvarna Model YTH 1542XP	1149 - 1150	1000	$1,000
1	2,000 gallon catchment tank for oily water	Unk	1151 - 1152	650	$650
1	Small cemet mixer	Unk - 4 bag capy	1154	200	$200
1	Radial Arm Saw	RIGID ?	1155	60	$60
1	Table Saw	ACE	1156	400	$400
1	6" Jointer	Delta	1157	600	$600
1	Chop saw	Bosch	1160	575	$575
1	10" Table saw	Delta	1158	300	$300
1	Miter Saw	Delta	1161	50	$50
1	12" Planer	Delta	1162	175	$175
1	Electric Air Compressor	Coleman 27gal. / 5 HP	1163	75	$75
1	16-1/2" Drill Press	Delta	1165 - 1166	325	$325
1	Gas powered Air Compressor	RIGID 9 gallon - 135 psi	1167 - 1168	75	$75
1	Amplifier / Mixer	Sampson Model 883	1169	60	$60
1	Hi-Rail Golf Cart Inspection Vehicle	Cushman model 80 EZ GO with Hi-Rail Wheels	1176 - 1179	1000	$1,000
1	Chain saw	Stihl D25	1180	150	$150
1	Chain saw	Stihl 021 16"	1180	250	$250
1	Leaf Blower - gas	Stihl	1180	140	$140
3	Stihl Gas Powered Trimmers	Stihl	1181	120	$360
1	10,000 gal oil tank	Diesel Fuel Storage	1183	6750	$6,750
1	10,000 gal diesel tank	Waste oil storage	1183 & 1185	6750	$6,750
1	3100 gallon reserve fuel tank - oil	Old Tank Car - No trucks	1184	1400	$1,400
1	Welder / Generator on flat bed truck	Lincoln Ranger 8	1076	900	$900
2	Tool boxes on Ford F-350 flat bed	Galvanized		275	$550
TOTAL					$ 77,937

Equipment and tooling was identified and categorized so as to develop a value associated with these assets. Primarily these are both standard maintenance tools for the repair of vehicles, locomotives and general maintenance. There were also many small items and miscellaneous tools that were in the shop but it was not practical to inventory all of them and they would have been very marginally valued as related to the overall valuation.

These assets were primarily valued based on comp sales of other similar tools and equipment.

Kaanapali Water Treatment / Reverse Osmosis System
Kaanaplai 5800 gallon water tank with spout

At the Kaanapali Depot a relatively new reverse osmosis water treatment system was installed in order to treat the water in the storage tank for filling the steam locomotives. Treated water is very important for use in steam locomotives so that the interior of the boilers stay clean and free from sludge or other deposits that can cause erosion and premature wear. These assets were assigned an FMV based on being a system of water treatment, holding tank and spout as the Kaanapali Water Station. Valuation was made on the treatment system infrastructure and the value of the 5800 gallon tank with spout.

Industrial water treatment reverse osmosis systems are noted on the market for $10,000 - $13,000 with capacity of up to 10,000 gallons per day. With the 5800 gallon water storage tank, associated piping, pumps and spout the entire system is valued at $15,000 which is basically the sum of the integrated parts minus a small discount. Systems priced are manufactured by Flexeon, Nelsen and Crystal Quest. The system upon some modifications could be transported for other industrial type uses and is not entirely subjected to railroad use.

SUMMARY OF VALUES

Summary Roll Up	FMV
Rail and OTM	$ 355,380
Unused Rail Inventory	$ 15,368
Ties	$ 145,544
Lahaina Turntable	$ 10,000
Total Track Assets	**$ 526,292**
Locomotives	$ 633,931
Rolling Stock	$ 311,750
Maintnenace of Way Equipment	$ 29,350
Vehicles - Rubber Tired	$ 67,779
Tooling	$ 77,937
Kaanapali Water Station	$15,000
Total Eqpt. / Tools / Other	**$ 1,135,747**
***Total**	**$ 1,662,039**

*This total does not include any buildings or real estate

Assumptions and Limiting Conditions

The Consultant assumes no responsibility for legal matters, nor does he offer any opinion as to the validity of the title to the subject assets, which they assume to be free and clear of all encumbrances and, therefore, marketable. He does not guarantee the existence or non-existence of liens or encumbrances upon the assets.

Appraiser Certification

I, Douglas J. Ellison, representing Stone Consulting, Inc., do hereby certify that I have personally inspected the assets described within this Appraisal Report.

I further certify that I have no undisclosed interest in the property, either present or contemplated. My employment to make this appraisal and compensation is non-contingent upon the value reported herein.

To the best of my knowledge and belief, the statements contained herein are correct, subject to the limiting conditions set forth, and no important facts have been overlooked or withheld.

The estimates of value as indicated below represent my unbiased judgment of the Fair Market Value of the property subject to the assumptions and limiting conditions as set forth.

Total FMV Valuation of Rail Assets as of April 2015 is as follows (rounded):

ONE MILLION SIX HUNDRED SIXTY TWO AND THIRTY-NINE DOLLARS and no/100. . . . . ($1,662,039.00)

Douglas J. Ellison
Vice President Rail Operations
Stone Consulting, Inc

LOCOMOTIVES

Locomotive #1

Locomotive #3

Locomotive #45 – diesel

Locomotive #5 – Display

PASSENGER CARS

Coach 105

Coach 105 Interior

Coach 106

Interior – Coach 106

Coach 107

Seat motif – Coach 101

Coach 108 – Out of Service

Coach 108 – Interior – Out of Service

Coach 103 – Narrow gage passenger trucks as applied to original cars 101-104

Coach 107 - Narrow Gage Freight trucks as applied to newer cars 105-109

Dual wheelchair lifts applied to Coach 109

Honda Gen-Set Coach 109

OTHER ROLLING STOCK

Maintenance of Way Flat Car

Three Bay Hopper Car – Historic Display Piece at Puukolii

Motor Vehicles

1991 Ford F-350 with tool boxes and generator

1984 Dodge D-350

1981 GMC 6000 Shuttle Bus

1992 Chevy 2500

2005 Ford F-250 Pick Up

1980's Grove Crane

2004 Case 580M Backhoe

Track & Right of Way

48 Foot Turntable at Lahaina built in 1987 by Lovestad of Seattle, WA

Typical Four Bolt Toe Style Rail Joint – 60AS Rail Section

Typical section of 60AS Rail in good condition

60AS rail with typical 6"x8" plate and spike pattern

Trestle with good timbers and rail

Track Section with ties measured out on 24" centers for steel OTM calculations

Rigid Plate #6 Frog – Puulokii Yard

Typical #6 Right Hand Turnout – Puukolii Yard

Rail Bound Manganese Frog – Puukolii Yard

New Track Section – circa 2007 – New Puukolii Wye

Spring Switch and Turnout – Puukolii – North Leg of Wye

MAINTENANCE OF WAY TRACK EQUIPMENT

36" gage Canron Tamper

Track Broom – Unknown

Track inspection vehicle converted from Golf Cart

Kaanapali Water Tank and Treatment Facility

5800 gallon Water Tank and Spout for fueling steam locomotive tenders

Kaanapali Reverse Osmosis Treatment System

Puukolii Shop Complex

General View of Shop Area

SELECTED EQUIPMENT & TOOLING

Miller 304XMT Welder

RIGID Band Saw

Universal Kempsmith Milling Machine

LeBlond 18" Lathe

Niles 38" Wheel Lathe

Tooling – Wrenches and Sockets

Air Impact Tools

Shop Air Compressor

Husqvarna Lawn Tractor – Model YTH1542XP

2000 Gallon catchment Tank for Oily Water

General View of Wood Shop

ACE Table Saw

Delta Jointer

Bosch Chop Saw

Delta Miter Saw

Delta 12" Planer

Stihl Chain Saws and Leaf Blower

3100 Gallon Reserve Oil tank – Old Tank Car

2- 10,000 Gallon Tanks for diesel fuel and waste oil

Old Flat Car Frames

Unused Track Material Inventory – ¾" x 4-1/2" Bolts

Appendix

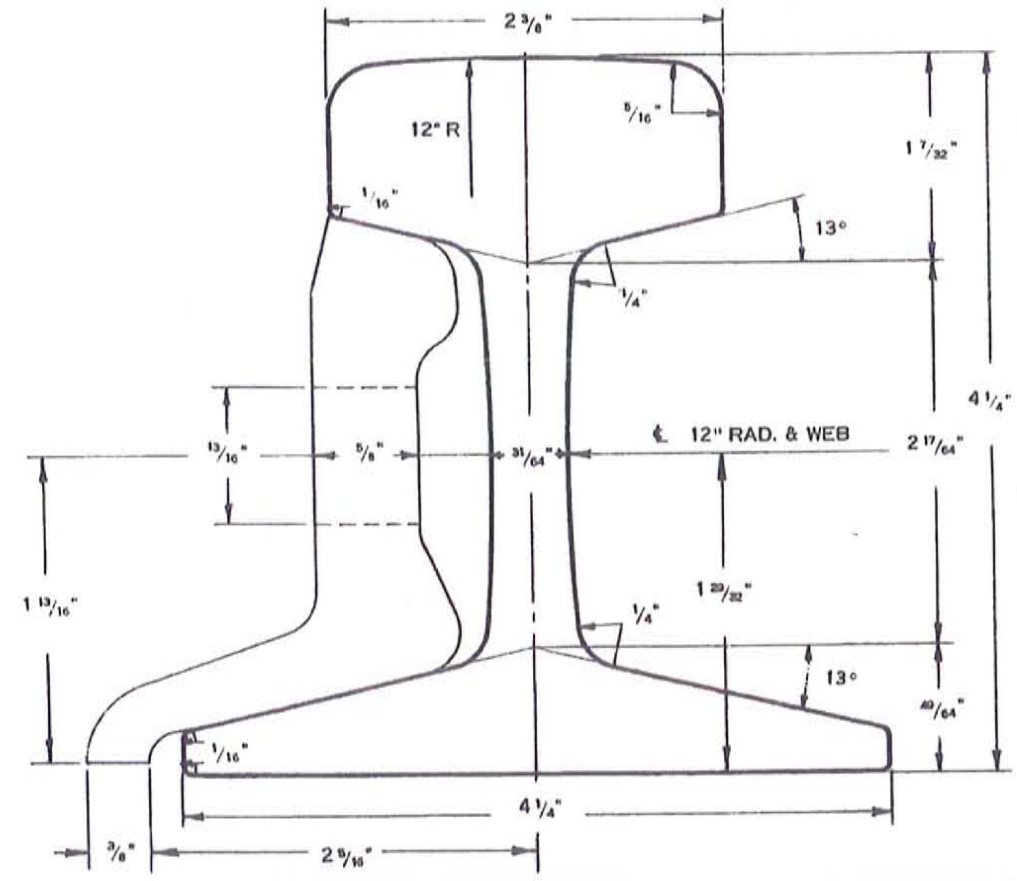
- Track, Rail and Ties
- Locomotive Inspection Reports - Anaka #1
- Locomotive Inspection Reports - Myrtle #3
- Locomotive and Passenger Car Comps
- Equipment and Tooling Comps

Track, Rail and Ties

60-lb. A.S.C.E. Rail

RAIL
60 lbs. per yard
105.6 net tons per mile of track
50 feet of track per net ton
Stock length 30'0"

ANGLE BARS
20" length 27.2 lbs. per pair
24" length 32.5 lbs. per pair



Unitrac Railroad Materials Inc.

Rail and OTM Weight Calculations

	QTY	Unit	Conversion to Miles	net tons / mile	Total Net Tons	FMV / Ton	Total FMV	Notes
Rail	27,018	feet	5.117	105.6	540.36	$ 500	$ 270,180	Relay Rail Reuse
			Weight (lbs) EA Size 6x8	**Tie Spacing**	**Total Net Tons**			
Plates	27,518	EA	6.55	24"	108.15	$ 500	$ 54,073	Assuming 20% of plates are larger than 6x8
incl + 500 in inventory								
			Weight (lbs) per pair Size 20"	**Rail Length (feet)**	**Total Net Tons**			
Bars	1801	Pairs	27.2	30	29.40	$ 500	$ 14,698	Assume 20% are 24" bars at 32.5 lbs / pair
			Weight (lbs) per pair Size 3/4 x 4-1/2	**Bolts / Pair**	**Total Net Tons**			Weight estimate to include lock washer
Bolts	7205	EA	1	4	3.6024	$ 214	$ 771	
			Weight EA (lbs) - 20% wastage	Avg. Spikes / Plate				
Spikes	60,791	EA	0.65568	2.25	19.93	$ 214	$ 4,265	Assuming 24" Center Ties
								2 / tie on tangent and 3/ tie on curves
								Wastage at 20% deduct
			Weight EA (lbs)		**Total Net Tons**			
Turnouts	11	EA	9680		53.24	$ 214	$ 11,393	Includes frogs, points and clips and bolts
							TOTAL FMV	
TOTALS							**$ 355,380**	

Track Hardware (Inventory)							**FMV**	**Comp Price**
				Per 200# Keg	**# of Kegs**	**QTY (EA)**		KIMES STEEL & RAIL
Spikes - 5/8x6"				$ 188.00	8		$ 1,504.00	
				Per 100# Keg				
Spikes - 5/8x6"				$ 94.00	6		$ 564.00	
			Price EA					
Track Bolts	3/4 x 4-1/2		$2.50 EA with lock washer	$ 562.50	6		$ 3,375.00	1.85 / bolt
Washer	3/4"		$ 0.49			1000	$ 490.00	for 3/4 x 4" - no washer
								Washer - 3/4" price 49 cents
Unused ties			$ 58.97			160	$ 9,435	Stella Jones Quote 3-23-15
TOTAL TRACK HARDWARE (INVENTORY)							**$ 15,368**	

TOTAL TRACK STEEL	**$ 370,748**

Kovalchick $500/ NT	
Kimes 500/Net Ton	
Kimes New 60AS - $600/ NT	
Hammerhaed - Maui	
Schnitzer - Oahu	
Ferrous Scrap	No quote
Autos - .03 / lbs	No quote
Kovalchick - no use	

QUOTATION

Date: March 31, 2015
Quote ML 2539 DU

Two Gateway Center, Suite 1000
603 Stanwix Street Pittsburgh, PA 15222
Phone: 800-272-8437 – Fax: 412-325-0208

Doug Ellison
Stone Consulting, Inc.
Warren, PA
814-688-0748 - cell

Reference: Quote Request 3-23-15
FOB: DuBois , Pa
Shipping Mode: Truck
Delivery Schedule: See below
Terms: Budget Number
Material: Oak/Mhw
Grade: AREMA specifications
Treatment: Creosote, 8# per cubic foot retention or refusal, per AWPA P2/P3-01
Special Note: See below

Quote #	DU 13974			Customer:	Stone Consulting Inc				
			8						
		SIZE			SPECIES	BF/EA	TOTAL	PRICE	PRICE
QTY	DIMENSIONS		LENGTH (Ft-In)				BF	EACH	EXT
1100	6	8	6	0	oak/mhw	24.000	26,400	$ 58.97	$64,867.00

Estimated Delivery: **110-120 days ARO**
Must have PO by 4/7/15 to hold.
NO END PLATING.

There is no freight included in the above costs, as no delivery location was specified. We have to buy them double end trimmed from the mill, can't run these across the trimmer. We cannot end plate as we have no machinery to apply them for this length and quantity.

I'm also charging for a restacking for treating the ties as they are a special size for the cylinder..

Micky Liguras **E-Mail: mliguras @stella-jones.com**

Regional Manager Sales **Phone: 800-272-8437**

THANK YOU FOR YOUR INQUIRY !

Locomotive Inspection Reports - Anaka #1

Form No. 5 **Locomotive Service Day Record**

Locomotive Initial and No. Anaka # 1 **owned by** Railroads of Hawaii **and operated by** Railroads of Hawaii **was placed in service following a 1472 Service Day Inspection on (start date)** 7/6/10 .
This locomotive shall not be operated after (date) 7/6/25 , or it shall not be operated after it has accumulated 1472 service days from the above start date, whichever comes first, at which time it shall be due for a 1472 Service Day Inspection.

	Year															
	10	11	12	13	14											
Serv. days since last insp.	~~0~~	23	13													
Annual Date	7/6	8/15/11	10/23		1/2											
Serv. days since last insp.	30	29	27		27											
31 Service Day Date	8/7	11/1/11		1/20	2/16											
Serv. days since last insp.	31	31		31	31											
31 Service Day Date	9/23	12/2/11		4/17	4/17											
Serv. days since last insp.	30	31	29	28	29											
92 Service Day Date	10/30	2/5/11	7/30	6/27	6/8											
Serv. days since last insp.	30	31		31	25											
31 Service Day Date	11/30	3/11/11		8/12												
Serv. days since last insp.	29	30		31												
31 Service Day Date	12/31	4/11/11		9/29												
Serv. days since last insp.		31		17												
92 Service Day Date		5/29/11														
Serv. days since last insp.		31														
31 Service Day Date		6/15/11														
Serv. days since last insp.																
31 Service Day Date																
Serv. days since last insp.																
92 Service Day Date																
Serv. days since last insp.																
31 Service Day Date																
Serv. days since last insp.																
31 Service Day Date																
Serv. days since last insp.																
Annual Date																
TOTAL	150	237	69	138	112											

Anaka

Total Days = 706

Service Days Remaining

766

5270

A copy of this record shall be filed with the Regional Administrator after 31 December and prior to 31 January of each year.

Signed [signature] Officer in Charge

Form No. 1 **31 and 92 Service Day Inspection Report**

Date of 6-8-14 Owner RAILROADS OF HAWAII Locomotive Initials ANAKA

Inspection _____ Operator RAILROADS OF HAWAII Locomotive No. 1

31 and 92 Service Day Requirements

Instructions: Non-complying conditions shall be repaired and this report approved before the locomotive is returned to service. Where condition is called for, enter either: (1) Good - No defects which could be discovered by a reasonable inspection; (2) Fair - Functioning less than optimally but safe and suitable and not in violation of the regulations; or (3) Poor - Not in compliance with the regulations. In any case N/A means - not applicable.

Was boiler washed? YES
Were water gauge and valve passages cleaned? YES
Were gauge cock passages cleaned? YES
Were all washout plugs removed and inspected? YES
Were arch tubes, circulators, siphons and water bar tubes cleaned and inspected? YES
Were fusible plugs removed, cleaned & inspected? YES
Were staybolts hammer tested? YES
Were all broken staybolts replaced? N/A

Were steam leaks repaired? YES
Condition of draft system and draw gear. GOOD
Condition of running gear. GOOD
Condition of driving gear. GOOD
Condition of spring/equalizing system. GOOD
Condition of tender running gear. GOOD
Condition of brake equipment. GOOD
Were injectors tested and in good condition? YES
Was feedwater pump tested and in good condition? N/A

92 Service Day Requirements

Date of previous 92 Service Day Inspection 1-2-2014
Safety relief valves pop at 171 psi 180 psi _____ psi
Were all steam gauges tested? YES
Were all air brake gauges tested? YES
Were steam gauge siphon pipe(s) cleaned? YES

Were tubular water glasses renewed? N/A
Were air compressor(s) orifice tested? YES
Was main reservoir tested for leakage? YES
Were brake cylinders tested for leakage? YES
Was tender tank entered and inspected? YES

If no 92 Service Day Inspection is done, enter number of service days used since last 92 Service Day Insp. _____

Stan Sooner
INSPECTOR

J. L. C. L.
INSPECTOR

The above work has been performed and the report is approved. J. L. C. L.
OFFICER IN CHARGE

Form No. 3

Annual Inspection Report

Date of Inspection 1-2-14 Owner RAILROADS OF HAWAII Operator RAILROADS OF HAWAII Locomotive Initials ANAIKA Locomotive No. 1

Instructions: Non-complying conditions shall be repaired and this report approved before the locomotive is returned to service. Where condition is called for, enter either: (1) Good - No defects which could be discovered by a reasonable inspection; (2) Fair - Functioning less than optimally but safe and suitable and not in violation of the regulations; or (3) Poor - Not in compliance with the regulations. In any case N/A means - not applicable.

Boiler hydrostatically tested to 225 psi, at a water temperature of 79 degrees F.

Was boiler washed? YES
Were water gauge and valve passages cleaned? YES
Were gauge cock passages cleaned? YES
Were all washout plugs removed and inspected? YES
Were arch tubes, circulators, siphons and water bar tubes cleaned and inspected? YES
Thickness of arch tubes N/A; Water bar tubes N/A
Dry pipe thickness ____; Circulator thickness N/A
Were water column passages cleaned and inspected? N/A
Was boiler entered and inspected? YES
Were drilled flexible staybolt telltale holes tested? N/A
Were staybolts hammer tested? YES
Were all broken staybolts replaced? N/A
Were longitudinal lap seams inspected? N/A
Was smoke box entered and inspected? YES
Safety relief valves pop at 175 psi 181 psi ____ psi
Were injectors tested and in good condition? YES
Was feedwater pump tested and in good condition? N/A
Were all steam gauges tested? YES

Were steam gauge siphon pipe(s) cleaned? YES
Were steam leaks repaired? YES
Were tubular water glasses renewed? N/A
Were fusible plugs removed, cleaned & inspected? YES
Flexi caps removed on (date) N/A
Were all air brake gauges tested? YES
Main reservoir hydro ____ psi, hammer ____
NDE ____, Drilled ✓
Were brake cylinders tested for leakage. YES
Was main reservoir tested for leakage. YES
Were air compressor(s) orifice tested? YES
Condition of driving gear. GOOD
Condition of running gear. GOOD
Condition of draft system and draw gear. GOOD
Condition of spring/equalizing system. GOOD
Condition of brake equipment. GOOD
Condition of tender running gear. GOOD
Was tender tank entered and inspected? YES

John Sagmen
INSPECTOR

INSPECTOR

The above work has been performed and the report is approved.

OFFICER IN CHARGE

Locomotive Air Brake Cleaning, Testing and Inspection Record

EQUIPMENT	SERVICE PERIOD	Previous Inspection	Current Annual Date	Inspection Date	Inspection Date	Inspection Date	Inspection Date	Notes
AIR COMPRESSOR ORIFICE TEST	92 service day	6/27/13	1/2/14					
AIR GAUGES	92 service day	6/27/13	1/2/14					
MAIN RESERVOIR LEAKAGE	92 service day	6/27/13	1/2/14					
BRAKE CYLINDER LEAKAGE	92 service day	6/27/13	1/2/14					
FILTERS	Annual Inspection	10/23/12	1/2/14					
DIRT COLLECTORS	Annual Inspection	10/23/12	1/2/14					
MAIN RESERVOIR HYDRO, HAMMER, NDE	Annual Inspection	Drilled	Drilled					
BRAKE VALVES	368 service days or second	10/23/12	1/2/14					

FRA Form 4 #1

BOILER SPECIFICATION CARD

Locomotive No. Anaka ; Boiler No. 548 ; Date built August 1985
Boiler built by: Western Metal Products
Owned by: Railroads of Hawaii, Inc.
Operated by: Railroads of Hawaii, Inc. dba Lahaina, Kaanapali + Pacific RR
Type of boiler: Straight Top Radial, ~~Stayed~~; Dome, where located: 2nd Course

BOILER SURVEY DATA

Where **condition** is called for, use: New - New material at the time of the boiler survey; **Good** - Little or no wear and/or corrosion; **Fair** - Obvious wear and/or corrosion.

Boiler Shell Sheets

Material:	Type of Material (wrought iron, carbon steel, or alloy steel)	Carbon Content	Condition
1st course (front)	SA 515 Gr 70	.26	Good
2nd course	SA 515 Gr 70	.26	Good
3rd course			
Rivets		n/a	n/a

Documentation of how material was determined shall be attached to this form.

Measurements:		At Seam	Thinnest		
Front flue sheet,	thickness	n/a	.508		
1st course,	thickness	.524,	.502,	ID 42 1/8",	ID
2nd course,	thickness	.529,	.514,	ID 42 1/8",	ID
3rd course,	thickness	N/E,	,	ID	ID

When courses are not cylindrical give ID at each end

Is boiler shell circular at all points? Yes
If shell is flattened, state location and amount
Are all flattened areas of shell stayed adequately for the pressure allowed by this form?

Water Space at Mud Ring: Sides 2 1/2", Front 2 1/2", Back 2 1/2"
Width of water space at sides of fire box measured at center line of boiler: Front 3", Back 3"

Firebox and Wrapper Sheets

Firebox sheets:	Thickness	Material	Condition
Rear flue sheet	.750	SA 516 Gr 70	Good
Crown	.513	SA 285 Gr C/SA 516 Gr 70	Good
Sides	.514	SA 285 Gr C/SA 516 Gr 70	Good
Door	.530	SA 285 Gr C	Good
Combustion chamber	N/E		
Inside throat	N/E		
Wrapper sheets:			
Throat	.547	SA 285 Gr C	Good
Back head	.533	SA 515 Gr 70	Good
Roof	.525	SA 515 Gr 70	Good
Sides	.525	SA 515 Gr 70	Good
Front Tube	.519	SA 285 Gr C	Good

Steam Dome

Dome is made of 2 pieces (not including seam welts, if any), Top opening diameter 14.5"
Middle cylindrical portion - ID 20.25", Opening in boiler shell, longitudinally - 20.25"

Dome sheets:	Thickness	Material	Condition
Base	N/E		
Middle cylindrical portion	.375	SA 285 Gr C	Good
Top	1.250	SA 285 Gr C	Good
Lid	1.750	SA 516 Gr 70	Good
Boiler shell liner for steam dome opening:	.370	SA 285 Gr C	Good

Is liner part of longitudinal seam? No

Arch Tubes, Flues, Circulators, Thermic Siphons, Water Bar Tubes, Superheaters, and Dry Pipe

Arch tubes: OD N/E, wall thickness ____; number ____; condition ____

Flues:
OD 2", wall thickness .95, length 108.5"; number 96; condition New 4/2010
OD ____, wall thickness ____, length ____; number ____; condition ____
OD ____, wall thickness ____, length ____; number ____; condition ____

Circulators: OD N/E, wall thickness ____; number ____; condition ____

Thermic siphons: number N/E; plate thickness ____; condition ____
neck OD ____, neck thickness ____; condition ____

Water bar tubes: OD N/E, wall thickness ____

Superheater units directly connected to boiler with no intervening valve:
Type N/E, Tube OD ____, wall thickness ____; number ____; condition ____

Dry pipe subject to pressure:
OD 3.5", wall thickness .235, material SA 106; condition Good

Stay Bolts, Crown Bar Rivets, and Braces

Stay bolts:
Smallest crown stay diameter 1.0, avg. spacing 5" X 5"; condition Good
** Smallest stay bolt diameter 1.0, avg. spacing 5.5" X 5.625"; condition Good
Smallest combustion chamber stay bolt dia. N/E,
avg. spacing ____ X ____; condition ____
Measurement at smallest diameter

Crown bar bolts & rivets:
Roof sheet rivets, smallest dia. N/E, ave. spacing ____ X ____; condition ____
Roof sheet bolts, smallest dia. N/E, ave. spacing ____ X ____; condition ____
Crown sheet rivets, smallest dia. N/E, ave. spacing ____ X ____; condition ____
Crown sheet bolts, smallest dia. N/E, ave. spacing ____ X ____; condition ____
Braces: Total Cross Sectional Area of Braces

** Note: Because of Mud Ring of welded construction, bottom row of Staybolts in firebox are 1.250" Diameter which supports an area of 7.562" x 6".

	Number	Total Area Stayed	Actual	Equivalent Direct Stay
Backhead	12@ 1 1/4"D	451.74 in sq	14.726 in sq	13.586 in sq
Throat sheet	5@ 1 1/8"D	102.3 in sq	4.97 in sq	4.97 in sq
Front tube sheet	14@ 1 1/4"D	445 in sq	17.178 in sq	15.617 in sq

Safety Valves, Heating Surface, and Grate Area

Safety valves: Total number of safety valves on locomotive 2

Valve Size	Manufacturer	No. valves of this size and manufacture
1 1/4"	Kunkle	2

Heating Surface:
Heating surface, as part of a circulating system in contact on one side with water or wet steam being heated and on the other side with gas or refractory being cooled, shall be measured on the side receiving heat.

Firebox and Combustion Chamber	41.86	square feet
Flue Sheets (less flue ID areas)	15.86	square feet
Flues	404.9	square feet
Circulators		square feet
Arch Tubes		square feet
Thermic Siphons		square feet
Water Bar Tubes		square feet
Superheaters (front end throttle only)		square feet
Other		square feet
Total Heating Surface	462.62	square feet

Grate area: 9.94 square feet

Water Level Indicators, Fusible Plugs, and Low Water Alarms

Height of lowest reading of gauge glasses above crown sheet: 3 1/4" 3 1/4"

Height of lowest reading of gauge cocks above crown sheet: 3 1/4"

Is boiler equipped with fusible plug(s)? Yes, number 2

Is boiler equipped with low water alarm(s)? No, number

Calculations

Staybolt stresses:

Stay bolt under greatest load, maximum stress: 7160 psi
Location: Backhead to Doorsheet

Crown stay, crown bar rivet, or crown bar bolt under greatest load, max. stress: 6610 psi
Location: Front Transverse Row

Combustion chamber stay bolt under greatest load, maximum stress: N/E psi
Location:

Braces:

Round or rectangular brace under greatest load, maximum stress: 5985 psi
Location: Backhead

Gusset brace under greatest load, maximum stress: N/E psi
Location:

Shearing stress on rivets:

Greatest shear stress on rivets in longitudinal seam: N/E psi
Location (course #): ; Seam Efficiency:

Boiler shell plate tension:

Greatest tension on net section of plate in longitudinal seam: 8425 psi
Location (course #): 1st & 2nd ; Seam Efficiency: .9

.9 used for welded seam not having reinforcement ground smooth.

Boiler plate and components, minimum thickness required @ tensile strength:

Front tube sheet	.462 @ 55000	Rear flue sheet	.342 @ 70000
1st course at seam	.245 @ 70000	1st course not at seam	.220 @ 70000
2nd course at seam	.245 @ 70000	2nd course not at seam	.220 @ 70000
3rd course at seam	N/E @	3rd course not at seam	N/E @
Roof sheet	.220 @ 70000	Crown sheet	.384 @ 55000
Side wrapper sheets	.410 @ 70000	Firebox side sheets	.433 @ 55000
Back head	.384 @ 70000	Door sheet	.433 @ 55000
Throat sheet	.384 @ 55000	Inside throat sheet	N/E @
Combustion chamber	N/E @	Dome, top	1.149 @ 55000
Dome, middle	.151 @ 55000	Dome, base	N/E @
Arch tubes	N/E @	Dome, lid	1.443 @ 70000
Water bar tubes	N/E @	Thermic siphons	N/E @
Dry pipe	.092 @ 34600	Circulators	N/E @

Notes.
1. **If tensile strength used is greater than 50,000 psi for steel or greater than 45,000 psi for wrought iron, supporting documentation must be furnished.**
2. **Any shell dimension less than 1/4" in thickness may not be adequate for support of or by other structures, particularly where threads or staybolts are concerned. Applicable codes should be consulted.**

Boiler Steam Generating Capacity: 6476.68 pounds per hour

The following may be used as a guide for estimating steaming capacity:
Pounds of Steam Per Hour Per Square Foot of Heating Surface:

Hand fired	8 lbs. per hr.
Stoker fired	10 lbs. per hr.
Oil, gas or pulverized fuel fired	14 lbs. per hr.

Record of Alterations

Description of Alteration — Date of Alteration

No alterations to report.

Record of Waivers

Section No.

Waiver No.	Affected	Scope and Content of Waiver

Calculations done by: Iolani A. Kaniho ; Verified by: Iolani A. Kaniho

Data used to verify the foregoing specifications is current and accurate. Based upon the information contained in this document and all necessary calculations, this boiler of Locomotive (Initial & number) Anaka #548 is safe for a working pressure of 180 psi.

Iolani A. Kaniho Date 7/16/2010 ; Iolani A. Kaniho Date 7/16/2010

Locomotive Owner **Locomotive Operator**

Make working sketch here or attach drawing of longitudinal and circumferential seams used in shell of boiler, indicating on which courses used and give calculated efficiency of weakest longitudinal seam.

All seams welded construction with weld reinforcements not ground flush efficeincy at time of construction by ASME code .9 PW-12

Locomotive Inspection Reports - Myrtle #3

Form No. 5 **Locomotive Service Day Record**

Locomotive Initial and No. Myrtle #3 **owned by** Railroads of Hawaii **and operated by** Railroads of Hawaii **was placed in service following a 1472 Service Day Inspection on (start date)** 7/8/2011. This locomotive shall not be operated after (date) 7/8/2026, or it shall not be operated after it has accumulated 1472 service days from the above start date, whichever comes first, at which time it shall be due for a 1472 Service Day Inspection.

	Year															
	11	12	13	14												
Serv. days since last insp.	0	30														
Annual Date	7/6	7/20		6/24												
Serv. days since last insp.	29	27		15												
31 Service Day Date	9/20	9/16														
Serv. days since last insp.	30	30														
31 Service Day Date	12/19	12/6														
Serv. days since last insp.			29													
92 Service Day Date			3/5													
Serv. days since last insp.			31													
31 Service Day Date			5/8													
Serv. days since last insp.			22													
31 Service Day Date																
Serv. days since last insp.		30														
92 Service Day Date		2/8														
Serv. days since last insp.		31														
31 Service Day Date		3/25														
Serv. days since last insp.		30														
31 Service Day Date		5/6														
Serv. days since last insp.																
92 Service Day Date																
Serv. days since last insp.																
31 Service Day Date																
Serv. days since last insp.																
31 Service Day Date																
Serv. days since last insp.																
Annual Date																
TOTAL	59	178	82	15												

Myrtle

Total Day = 334

Service Days Remaining

1138

77.3%

A copy of this record shall be filed with the Regional Administrator after 31 December and prior to 31 January of each year.

Signed dd: a K-L Officer in Charge

Last Periodic Before Closure.

Form No. 3 **Annual Inspection Report**

Date of Inspection 6/27/14 Owner Railroads of Hawaii Operator Railroads of Hawaii Locomotive Initials Myrtle Locomotive No. 3

Instructions: Non-complying conditions shall be repaired and this report approved before the locomotive is returned to service. Where condition is called for, enter either: **(1) Good** - No defects which could be discovered by a reasonable inspection; **(2) Fair** - Functioning less than optimally but safe and suitable and not in violation of the regulations; or **(3) Poor** - Not in compliance with the regulations. In any case N/A means - not applicable.

Boiler hydrostatically tested to 225 psi, at a water temperature of 76 degrees F.

Was boiler washed? Yes
Were water gauge and valve passages cleaned? Yes
Were gauge cock passages cleaned? Yes
Were all washout plugs removed and inspected? Yes
Were arch tubes, circulators, siphons and water bar tubes cleaned and inspected? N/A
Thickness of arch tubes N/A; Water bar tubes N/A
Dry pipe thickness ____; Circulator thickness N/A
Were water column passages cleaned and inspected? Yes
Was boiler entered and inspected? Yes
Were drilled flexible staybolt telltale holes tested? N/A
Were staybolts hammer tested? Yes
Were all broken staybolts replaced? Yes
Were longitudinal lap seams inspected? Yes
Was smoke box entered and inspected? Yes
Safety relief valves pop at 172 psi 182 psi ____ psi
Were injectors tested and in good condition? Yes
Was feedwater pump tested and in good condition? N/A
Were all steam gauges tested? Yes

Were steam gauge siphon pipe(s) cleaned? Yes
Were steam leaks repaired? Yes
Were tubular water glasses renewed? N/A
Were fusible plugs removed, cleaned & inspected? Yes
Flexi caps removed on (date) N/A
Were all air brake gauges tested? Yes
Main reservoir hydro ____ psi, hammer ____
NDE ____, Drilled ✓
Were brake cylinders tested for leakage. Yes
Was main reservoir tested for leakage. Yes
Were air compressor(s) orifice tested? Yes
Condition of driving gear. Good
Condition of running gear. Good
Condition of draft system and draw gear. Good
Condition of spring/equalizing system. Good
Condition of brake equipment. Good
Condition of tender running gear. Good
Was tender tank entered and inspected? Yes

Stan Sonnex
INSPECTOR

Del Cole
INSPECTOR

The above work has been performed and the report is approved. Del Cole
OFFICER IN CHARGE

Locomotive Air Brake Cleaning, Testing and Inspection Record

EQUIPMENT	SERVICE PERIOD	Previous Inspection	Current Annual Date	Inspection Date	Inspection Date	Inspection Date	Inspection Date	Notes
AIR COMPRESSOR ORIFICE TEST	92 service day	3/5/13	6/27/14					
AIR GAUGES	92 service day	3/5/13	6/27/14					
MAIN RESERVOIR LEAKAGE	92 service day	3/5/13	6/27/14					
BRAKE CYLINDER LEAKAGE	92 service day	3/5/13	6/27/14					
FILTERS	Annual Inspection	7/20/12	6/27/14					
DIRT COLLECTORS	Annual Inspection	7/20/12	6/27/14					
MAIN RESERVOIR HYDRO, HAMMER, NDE	Annual Inspection	7/20/12	6/27/14					
BRAKE VALVES	368 service days or second	3/5/13	6/27/14					

NEEDS TUBES
AND 147E

FRA Form 4

BOILER SPECIFICATION CARD

Locomotive No. Myrtle ; Boiler No. Dixon #1257 NB #2361 ; Date built 1990
Boiler built by: Dixon Boiler Works Inc. Los Angeles, CA.
Owned by: Railroads of Hawaii, Inc.
Operated by: Railroads of Hawaii, Inc.
Type of boiler: Straight Top Radial, Stayed ; Dome, where located: 1st course

BOILER SURVEY DATA

Where **condition** is called for, use: **New** - New material at the time of the boiler survey; **Good** - Little or no wear and/or corrosion; **Fair** - Obvious wear and/or corrosion.

Boiler Shell Sheets

Material:	Type of Material (wrought iron, carbon steel, or alloy steel)	Carbon Content	Condition
1st course (front)	SA 516 Gr 70	.22	Good
2nd course	SA 516 Gr 70	.21 - .22	Good
3rd course			
Rivets		n/a	n/a

Documentation of how material was determined shall be attached to this form.

Measurements:		At Seam	Thinnest		
Front flue sheet,	thickness	n/a	.497		
1st course,	thickness	.512,	.482,	ID 42"	,ID
2nd course,	thickness	.517,	.447,	ID 42"	,ID
3rd course,	thickness	,	,	ID	,ID

When courses are not cylindrical give ID at each end

Is boiler shell circular at all points? Yes
If shell is flattened, state location and amount N/A
Are all flattened areas of shell stayed adequately for the pressure allowed by this form? N/A

Water Space at Mud Ring: Sides 2 ½", Front 2 ½", Back 2 ½"
Width of water space at sides of fire box measured at center line of boiler: Front 3", Back 3"

Firebox and Wrapper Sheets

Firebox sheets:	Thickness	Material	Condition
Rear flue sheet	.746	SA 285 C	Fair
Crown	.507	SA 516 Gr 70	Good
Sides	.501	SA 516 Gr 70	Good
Door	.510	SA 516 Gr 70	Fair
Combustion chamber	N/E		
Inside throat	N/E		
Wrapper sheets:			
Throat	.512	SA 516 Gr 70	Good
Back head	.503	SA 516 Gr 70	Good
Roof	.507	SA 516 Gr 70	Good
Sides	.515	SA 516 Gr 70	Good
Front Tube	.508	SA 516 Gr 70	Good

new
$7k - 10% material
shop

Steam Dome

Dome is made of 2 pieces (not including seam welts, if any), Top opening diameter 15"
Middle cylindrical portion - ID 20.25", Opening in boiler shell, longitudinally - 20.25"

Dome sheets:	Thickness	Material	Condition
Base	N/A		
Middle cylindrical portion	.374	SA 285 Gr C	Good
Top	1.875	SA 105	Good
Lid	1.875	SA 105	Good
Boiler shell liner for steam dome opening:	.491	SA 516 Gr 70	Good

Is liner part of longitudinal seam? NO

Arch Tubes, Flues, Circulators, Thermic Siphons, Water Bar Tubes, Superheaters, and Dry Pipe

Arch tubes: OD N/E, wall thickness ____; number ____; condition ____

Flues:
OD 2", wall thickness .105, length 108"; number 96; condition New 5/2011
OD ____, wall thickness ____, length ____; number ____; condition ____
OD ____, wall thickness ____, length ____; number ____; condition ____

Circulators: OD N/E, wall thickness ____; number ____; condition ____

Thermic siphons: number N/E; plate thickness ____; condition ____
neck OD ____, neck thickness ____; condition ____

Water bar tubes: OD N/E, wall thickness ____

Superheater units directly connected to boiler with no intervening valve:
Type N/E, Tube OD ____, wall thickness ____; number ____; condition ____

Dry pipe subject to pressure:
OD 3.5", wall thickness .233, material SA 106; condition Good

Stay Bolts, Crown Bar Rivets, and Braces

Stay bolts:
Smallest crown stay diameter 1.125", avg. spacing 5" X 5"; condition Good
** Smallest stay bolt diameter 1", avg. spacing 5.125" X 6"; condition Good
Smallest combustion chamber stay bolt dia. N/E,
avg. spacing ____ X ____; condition ____
Measurement at smallest diameter

Crown bar bolts & rivets:
Roof sheet rivets, smallest dia. N/E, ave. spacing ____ X ____; condition ____
Roof sheet bolts, smallest dia. N/E, ave. spacing ____ X ____; condition ____
Crown sheet rivets, smallest dia. N/E, ave. spacing ____ X ____; condition ____
Crown sheet bolts, smallest dia. N/E, ave. spacing ____ X ____; condition ____
Braces: Total Cross Sectional Area of Braces

** Note: Because of Mud Ring of welded construction, bottom row of staybolts in firebox are 1.250" Diameter which supports an area of 7.562" x 5.125".

	Number	Total Area Stayed	Actual	Equivalent Direct Stay
Backhead	10@ 1 1/8" D	315 sq"	9.94 sq"	9.122 sq"
Throat sheet	N/E			
Front tube sheet	140 1 1/8" D	444.16 sq"	13.92 sq"	13.47 sq"

Safety Valves, Heating Surface, and Grate Area

Safety valves: Total number of safety valves on locomotive _____

Valve Size	Manufacturer	No. valves of this size and manufacture
1 1/4"	Kunkle	2

Heating Surface:
Heating surface, as part of a circulating system in contact on one side with water or wet steam being heated and on the other side with gas or refractory being cooled, shall be measured on the side receiving heat.

Firebox and Combustion Chamber	41.86	square feet
Flue Sheets (less flue ID areas)	15.86	square feet
Flues	404.9	square feet
Circulators	N/E	square feet
Arch Tubes	N/E	square feet
Thermic Siphons	N/E	square feet
Water Bar Tubes	N/E	square feet
Superheaters (front end throttle only)	N/E	square feet
Other	N/E	square feet
Total Heating Surface	462.62	square feet

Grate area: 9.94 square feet

Water Level Indicators, Fusible Plugs, and Low Water Alarms

Height of lowest reading of gauge glasses above crown sheet: 3 1/4" 3 1/4"

~~**Height of lowest reading of gauge cocks above crown sheet:** 3 1/4"~~

Is boiler equipped with fusible plug(s)? Yes, number 2

Is boiler equipped with low water alarm(s)? NO, number _____

Calculations

Staybolt stresses:

Stay bolt under greatest load, maximum stress 7122 psi
Location On side sheets

Crown stay, crown bar rivet, or crown bar bolt under greatest load, max. stress 6610 psi
Location Rear Tranverse Row

Combustion chamber stay bolt under greatest load, maximum stress N/E psi
Location

Braces:

Round or rectangular brace under greatest load, maximum stress 8372 psi
Location Backhead

Gusset brace under greatest load, maximum stress N/E psi
Location

Shearing stress on rivets:

Greatest shear stress on rivets in longitudinal seam All Welded Construction psi
Location (course #) N/A ; Seam Efficiency

Boiler shell plate tension:

Greatest tension on net section of plate in longitudinal seam 7560 psi
Location (course #) 1st + 2nd ; Seam Efficiency 100%

Boiler plate and components, minimum thickness required @ tensile strength:

Front tube sheet	.410 @ 70000	Rear flue sheet	.384 @ 55000
1st course at seam	.220 @ 70000	1st course not at seam	.220 @ 70000
2nd course at seam	.220 @ 70000	2nd course not at seam	.220 @ 70000
3rd course at seam	N/E @	3rd course not at seam	N/E @
Roof sheet	.275 @ 70000	Crown sheet	.341 @ 70000
Side wrapper sheets	.410 @ 70000	Firebox side sheets	.410 @ 70000
Back head	.376 @ 70000	Door sheet	.376 @ 70000
Throat sheet	.341 @ 70000	Inside throat sheet	N/E @
Combustion chamber	N/E @	Dome, top	1.404 @ 70000
Dome, middle	.136 @ 55000	Dome, base	N/E @
Arch tubes	N/E @	Dome, lid	1.482 @ 70000
Water bar tubes	N/E @	Thermic siphons	N/E @
Dry pipe	.092 @ 34600	Circulators	N/E @

Notes. 1. **If tensile strength used is greater than 50,000 psi for steel or greater than 45,000 psi for wrought iron, supporting documentation must be furnished.**

2. **Any shell dimension less than 1/4" in thickness may not be adequate for support of or by other structures, particularly where threads or staybolts are concerned. Applicable codes should be consulted.**

Boiler Steam Generating Capacity: 6477 pounds per hour

The following may be used as a guide for estimating steaming capacity:
Pounds of Steam Per Hour Per Square Foot of Heating Surface:

Hand fired	8 lbs. per hr.
Stoker fired	10 lbs. per hr.
Oil, gas or pulverized fuel fired	14 lbs. per hr.

Record of Alterations

Description of Alteration — Date of Alteration

Flush Patch repair - Engineer's side Stayed area	June 2011
Location Row 7, Column 7. (Front to back)	
All welding preformed by JMI Inc to ASME Sect I	

Record of Waivers

Section No.

Waiver No.	Affected	Scope and Content of Waiver

Calculations done by: Iolani A. Kaniho ; Verified by: Iolani A. Kaniho

Data used to verify the foregoing specifications is current and accurate. Based upon the information contained in this document and all necessary calculations, this boiler of Locomotive (Initial & number) Myrtle #1257 is safe for a working pressure of 190 psi.

Iol A. Kal Date 8/5/11 ; Iol A. Kal Date 8/5/11

Locomotive Owner Locomotive Operator

Make working sketch here or attach drawing of longitudinal and circumferential seams used in shell of boiler, indicating on which courses used and give calculated efficiency of weakest longitudinal seam.

All seams of all welded construction seams 100% efficient.

Locomotive and Passenger Car Comps

Locomotives

Number	Name	Type	Builder	Builders #	Date	Driver Diameter	Cylinders	Weight	Notes	Status
1	Anaka	2-6-0	Porter	7398	1943	36"	12x18	51000	Ex Carbon Limestone 0-4-0T #36 Built as 38" gage	Operable - 766 days left on 1472 insp.
3	Myrtle	2-6-0	Porter	7397	1943	36"	12x18	50500	Ex Carbon Limestone 0-4-0T #35 Built as 38" gage	Oprtable - 1138 days left on 1472 insp.
45	Diesel	0-4-0	Fate-Root Heath	6166	1959		Diesel	60000	Ex Oahu Railway #45	Operable but needs torque converter
5		0-6-2T	Baldwin	32816	1908	33"	12x16	51000	Ex Oahu Sugar #5	Display Only

Summary of Value

Number	FMV
1	$ 286,630
3	$306,848
45	$35,000
5	$ 5,453
TOTAL	**$ 633,931**

Comps are based on quote from Wasatch Rail quote dated 4-1-15 and Ozark Mountain Rail Equipment sales 4-1-15
36" gage equipment and comp survey done by TranSytems for steam engine sales October 2009 (attached as part of appendix)
Locomotive #5 appraised as a core at scrap price based on derived value of scrap steel.

Ozark Mountain	Asking	Notes
Steam Engines - 3ft. Gage		
Baldwin #44 2-8-0	$760,000	Complete, unassembled - needs restoration
Baldwin #40 2-8-0	$1,385,000	Complete good condition - operated in 2013
Shay #8 - 3 truck	$910,000	operating but needs complete restoration

Diesels - standard gage			
GE 45 ton diesel	**Sold**	$15K	Ozark Mountain Rail 10-16-12
1953 Plymouth 40 ton	**Sold**	$18K	Ozark Mountain Rail 12-9-11
GE 45 ton diesel	**Sold**	$40K	Ozark Mountain Rail 4-3-11
GE 45 Ton - unrebuilt	**Sold**	$22K	Ozark Mountain Rail 2-26-13

Wasatch		
German Built	$365,000	Needs some assembly and new boiler
	$500,000	Wasatch estimate for new boiler
*Asking	**$865,000**	Loco & new boiler but still needing assy and finishing

*This locomotive may not command an actual sale price that covers the investmnent to restore it to operation.

TranSystems
Steam Locomotive Comparables
Last Updated 10/20/09

Steam Locomotive Comparables - sales and rehab data

Wilmington & Western 2-8-2 #37
aka Pacific Lumber 37

Seller: Wilmington & Western Railroad
Buyer: Timber Heritage Association (NCLIA)
Sale Date: December 2004 $50,000
http://visithumboldt.com/loggingmuseum/locomotive37.html
Notes:
Locomotive not in operational condition; estimated cost of overhaul **$50,000**
by Scott Lindsay was $235,000 235,000
Strasburg estimate for repairs at $400,000
$285,000

Kahului Railroad 2-6-2 #12 ***Narrow gauge***

Seller: Silverwood Amusement Park (D.F. Barnhart, broker)
Buyer: Colorado Historical Society (Georgetown Loop)
Sale Date: May 2005 Asking $250,000
Sale price **$175,000**

China SY-class 2-8-2

Qiang Ge Multipower International, Inc 12/12/2005
http://www.multipowerinternational.com/standard.html

Base locomotive, used condition; overhauled	350000	*2009 updated price*	
Optional factory overhaul (in China)	included		
FRA inspections/Form 4	included		
Domestic Chinese transportation		TBD	
Sea Freight and insurance to US port	57000		
Departure port fees	5600		
Total	$412,600		**$412,600**
Additional US transportation (est.)	$8,000		
Rail via interchange (minimum)			
Delivered valuation	420600	estimate	

McCloud River Railroad 2-8-2 #18

Seller: McCloud River Railway **$420,000**
Buyer: V&T Railway Commission
Sale date: March, 2005
Notes:
Operating condition with valid FRA Form 4
Not including destination freight - to be stored @McCloud
35,000+ tractive effort, ex-logging locomotive

TranSystems
Steam Locomotive Comparables
Last Updated 10/20/09

Steam Locomotive Comparables - sales and rehab data

Southern Pacific 2-6-0 #1744

Seller: New Orleans & Gulf Coast Railroad
Buyer: Rio Grande Scenic
Last viewed: 12/12/2005
Notes: Current sale price (offer) **$800,000**
Operating condition with current Form 4 and 90 days off of last flue
Approximately 1380 flue days left

Purchased July 2007 $500,000 via verbal from Rio Grande Scenic

NKP 2-8-4 #763

Seller: Virginia Museum of Transportation
Buyer: Jerry Jacobsen
Date: July, 2007
Notes: Sale price **$125,000** http://www.roanoke.com/news/roanoke/wb/125527

Locomotive able to be interchanged on own wheels
Not operational since 1960's. Complete rebuild pending

BML 1149 4-6-0 (Swedish)

Seller: Rail Merchants International
Buyer: open offer
Current (October 2009)

Form 4 is in question on status Offer price **$175,000**
Operational but unknown days on tubes Seller: Negotiations underway

Cooperstown & Charlotte Valley 0-6-0

Seller: DF Barnhart
Buyer: Bill Miller (private individual)
Date: October 2009 Offer price **$44,400** http://www.coopercrier.com/local/local_story_281083133.html

Notes: Locomotive in scrap condition; transported on flatbed trailer in pieces

Texas State Railroad #300 2-8-0

Seller: none (direct overhaul cost - documented)
Buyer: none (direct overhaul cost - documented
Date: September, 2009

Locomotive value - operational, form 4 expired, wheels condemned
work consisted of Form 4, new tubes, replacement of pony truck, turn drivers
replace tender wheels, axles and bearings. Repaint and refinish

Base locomotive **$125,000** without rehab
Rehab price: **$243,941** TEA-21 rehab; as invoiced
Total Value **$368,941**

TranSystems
Steam Locomotive Comparables
Last Updated 10/20/09

Steam Locomotive Comparables - sales and rehab data

McCloud River Railroad #19 2-8-2

Seller: Ozark Mt. Railcar (McCloud River Railroad
Buyer: None (offered for sale)
Date: October, 2009

Locomotive in operational condition on McCloud River RR
Oil fired boiler, c/n 42000, empty weight 178,700 lbs, weight on drivers 140,000 lbs, driver diameter 48", tractive effort 36,680 lbs
, boiler pressure 185 lbs, cylinders 20" x 28", standard gauge,
Walschaerts valve gear, mechanical lubricators, power reverser, dual air compressors, 6 brake,
locomotive rebuilt in 2005 and has approximately 160 days of service.

Offer price:	**$645,000**	http://www.ozarkmountainrailcar.com/baldwin_282_19.htm
Estimated sale	$403,125	based on previous sale Has not sold

WASATCH
Railroad Contractors
P.O. Box 20425 http://wrrc.us
Cheyenne, WY 82003
(307) 778-7458

Doug Ellison
Stone Consulting
P.O. Box 306
Warren, PA 16365

Re: Comparable sales/purchases narrow gauge passenger equipment

April 3, 2015

Mr. Ellison,

As per your request, please find some recent comparable sales statistics as per your request. It is noted that the bulk of the information provided comes from sales, proposed sales, actual sales and asking prices for like and similar equipment for the past 2 years. This list includes open air passenger cars, closed passenger cars and steam locomotives of the 36 inch narrow gauge type. All items would be FRA compliant and ready for service.

New Open Air Passenger Cars

There are a number of US based companies that will build new open air cars. Two companies have been contacted for this survey and the cost was between $85,000.00 to $175,000.00 per car, new, excluding shipping. These cars would include HDA accessible doors, some minor lighting and sound systems and seats for as many as 50 people per car, as few as 25 per car.

Closed Coach Riding Cars

Two companies provided estimates on closed coach indoor seating A/C equipped cars. These cars run anywhere from $400,000.00 to as low as $265,000.00 per unit, excluding delivery. These cars would also include lighting, sound systems and would seat no more than 50 people, no less than 25 and would be fully handicap accessible.

Used Open Air Coaches

There are not many open air coaches in 36 inch gauge on the open market. It is projected, based on scrap value of the steel and usability of the car that open air type cars would value at half the amount of new, like or similar cars. Based on this projection; it is assumed that a good condition, used open air coach would be valued at between $42,500.00 and $87,500.00.

There is one report that suggests some used cars were sold and or exchanged in the USA between two railroads for something in the $10,000.00 per car range. These deals included many other items, not just open air cars. These deals may have also included good will and other tools and equipment.

Steam Locomotives

WRC currently has a 36 inch gauge German built steam locomotive on the market, asking $365,000.00, still needs final assembly and installation of new boiler. WRC has built and installed new boilers on a number of narrow gauge steam locomotives. These new boilers alone ran in the $400,000.00-$500,000.00 range.

Equipment and Tooling Comps

Equipment & Tooling

Item #	Qty	Description	Make / Model	Photo Reference	FMV EA	FMV Extended	Notes
1	1	Gas Welder - Stick	Lincoln Arc welder	1103	1367.5	$1,368	$2735 new - Val 50%
2	1	Electric Welder - Stick	Lincoln Wirematic 255	1098 - 1099	1080.5	$1,081	New $2161 - Val 50%
3	1	Wire Feed Welder	Miller XMT 304 CC / CV	1106 - 1107	1861.5	$1,862	New $3723 - Val 50%
4	1	Plasma Cutter	Thermal Dynamic EconoPak 50	1104 - 1105	300	$300	Based on used tool market
5	1	Band saw	Rigid (no model # - see photo #1108	1108	750	$750	Based on used tool market
6	1	Sand Blaster	Econoline - Photo 1109	1109	1000	$1,000	New $2000 - Val 50%
7	1	Cutting Torch set with cart, gages and tanks	Unk - photo 1111	1111	462.5	$463	New $125 - Val 50% (tanks at $200 EA)
8	1	Portable Generator - 5000 watt	Generac C 5000	1100	1575	$1,575	New comp price $2100 - 25% deduct on used
9	1	Arc Welder	Airco Easy Arc AC/DC 250 amp	1101 - 1102	300	$300	Used pricing - general market
10	1	Milling Machine	Universal Kempsmith	1112 - 1113	10000	$10,000	50% of cost of each comp associated with a total wheel shop
11	1	Milling / Drilling Machine	MSC	1114	2200	$2,200	General used pricing
12	1	Vertical Drill Press	RIDGID	1116 - 1117	750	$750	New $2650 - Used retail $750
13	1	Dual wheel table grinder	Jet	1118	109	$109	New - $218 - 50% deduct on used
14	1	Dual wheel table grinder	Unknown	1119	87.2	$87	Older model - 60% discount from above
15	1	18" lathe	LeBlond	1120 - 1121	6700	$6,700	With tooling - average pricing $6700 used
16	1	38" lathe	Niles	1122-1123-1124	10000	$10,000	50% of cost of each comp associated with a total wheel shop
17	1	Gantry Crane	unk	1125	1099.5	$1,100	New $2199 - 50% deduct on used
18	2	Chop saws	DeWalt	1136	100	$200	New $200 - 50% used
19	2	Cordless Drills	DeWalt	1137	39	$78	New price $78EA 50% deduct for used
20	1	large impact drill	Matco	1138	150	$150	Local used pricing
21	1	small impact drill	Chicago Pneumatic		120	$120	Local used pricing
22	1	Jack Hammer	Bosch with cart and tools	1139	$ 1,020	$1,020	$2040 new - Val 50%
23	1	Set of (2) Locomotive Jacks - Air	Duff - Norton Model 228	1127	1195	$1,195	May not be in working condition / Has core clue priced at 50% used refurbished
24	1	Set 25 ton hydraulic jacks	unk	1132	1300	$1,300	set for $1300 used pricing
25	1	Set 30 ton hydraulic jacks	unk	1132	1300	$1,300	set for $1300 used pricing
26	Misc	Chains, slings and straps	various	1133-1134-1135	1500	$1,500	$1500 - engineers estimate
27	1	Air Shop Air Compressor	10 HP	1140 - 1141	$2,500	$2,500	Appraised from recent compressor donation to Adirondack Scenic Railroad
28	1	Tool box with miscellaneous tools	Kobalt 20 drawer / various tools	1131	$ 2,450	$ 2,450	Tool box alone new about $900 (50% - tooling $100 / drawer
29	1	4 drawer Tool Box with tools	Craftsman box - various tools	1131	$ 187	$187	Box alone new $150 263 piece tool set new: $223 Val = 50%
30	Misc	Assorted sockets and Wrenches	Various	1130	1500	$1,500	Various individual and miscellaneous tooling in shop
31	misc	Assorted pipe fittings / nuts / bolts	Various	1128 - 1129	1000	$1,000	Uninventoried / Assorted
32	1	Light Duty Utility Trailer	2 wheel ball hitch	1144 - 1145	550	$550	$550 - general used pricing
33	1	Jackson portable tamper gas powered	Jackson / Tecumseh	1146 - 1147 - 1148	150	$150	Core / Scrap Value (Engineers opinion) No comps found - Obsolete equipment
34	1	Heavy Duty Trailer	2 wheel for tamper	1148	850	$850	$850 - general used pricing
35	1	Riding Lawn mower	Husqvarna Model YTH 1542XP	1149 - 1150	1000	$1,000	Used Retail $750 - $1095 without catcher attachment
36	1	2,000 gallon catchment tank for oily water	Unk	1151 - 1152	650	$650	$1300 new pricing - 50% deduct
37	1	Small cemet mixer	Unk - 4 bag capy	1154	200	$200	Used local pricing
38	1	Radial Arm Saw	RIGID ?	1155	60	$60	Local used pricing
39	1	Table Saw	ACE	1156	400	$400	Local used pricing
40	1	6" Jointer	Delta	1157	600	$600	Local used pricing
41	1	Chop saw	Bosch	1160	575	$575	$1150 new - 50% deduct on used
42	1	10" Table saw	Delta	1158	300	$300	Local used pricing
43	1	Miter Saw	Delta	1161	50	$50	New price- $100 50% deduct on used
44	1	12" Planer	Delta	1162	175	$175	$350 new - 50% deduct on used
45	1	Electric Air Compressor	Coleman 27gal. / 5 HP	1163	75	$75	Local used pricing
46	1	16-1/2" Drill Press	Delta	1165 - 1166	325	$325	$650 new price - 50% deduct
47	1	Gas powered Air Compressor	RIGID 9 gallon - 135 psi	1167 - 1168	75	$75	Local used pricing
48	1	Amplifier / Mixer	Sampson Model 883	1169	60	$60	Based on used retail
49	1	Hi-Rail Golf Cart Inspection Vehicle	Cushman model 80 EZ GO with Hi-Rail Wheels	1176 - 1179	1000	$1,000	Valued as a track inspection vehicle rather than a golf cart
50	1	Chain saw	Stihl D25	1180	150	$150	Used pricing = $150
51	1	Chain saw	Stihl 021 16"	1180	250	$250	Used pricing = $250
52	1	Leaf Blower - gas	Stihl	1180	140	$140	Local used pricing
53	3	Stihl Gas Powered Trimmers	Stihl	1181	120	$360	Local used pricing
54	1	10,000 gal oil tank	Diesel Fuel Storage	1183	6750	$6,750	Refurbised used tank cost +/- $13500 EA - 50% deduct for used
55	1	10,000 gal diesel tank	Waste oil storage	1183 & 1185	6750	$6,750	Refurbised used tank cost +/- $13500 EA - 50% deduct for used
56	1	3100 gallon reserve fuel tank - oil	Old Tank Car - No trucks	1184	1400	$1,400	Used 3500 - 60% deduct as old tank car
57	1	Welder / Generator on flat bed truck	Lincoln Ranger 8	1076	900	$900	Based on local used market
	2	Tool boxes on Ford F-350 flat bed	Galvanized		275	$550	Used Local pricing
	TOTAL					**$ 77,937**	

A comp sale was found for a complete wheelshop of heavy machine equipment for $80,000
This included a boring mill, wheel lathe, axle lathe and bearing press
Each individual component may be valued at 50% less than the average per piece as individual units
This would account for the 38" wheel lathe and the Universal milling machine