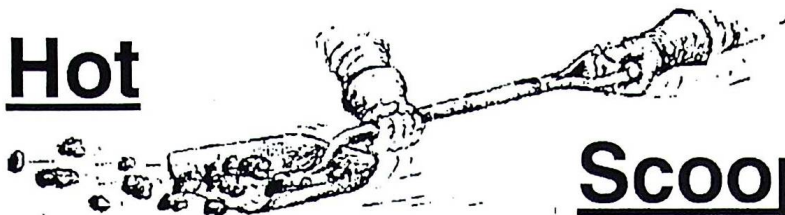


Hot



Scoop

A publication dedicated to the volunteers of the San Diego Railroad Museum

September 1994
VOL VI NO IX

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c/o Santa Fe Depot
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San Diego, Ca.
92101

DIRECTOR OF CAMPO OPERATIONS

Denby Jones

Monday, 29 August, the 75th Anniversary committee met, along with myself, Richard Dick, Fred Byle of SD&IV and Larry Williams, to finalize our course of action for the 75 th celebration and train trip. After much very open discussion it was decided to postpone the train ride behind steam until the early spring of 1995. Factors involved in this decision were the mechanical condition of our rolling stock, progress of the restoration of 2353, condition of the bridge at Rodriquez, available daylight hours and present internal considerations for the SD Trolley.

However, this is just a postponement, not a cancellation. It also just affects the train trip, not the rest of the planned activities at Campo.

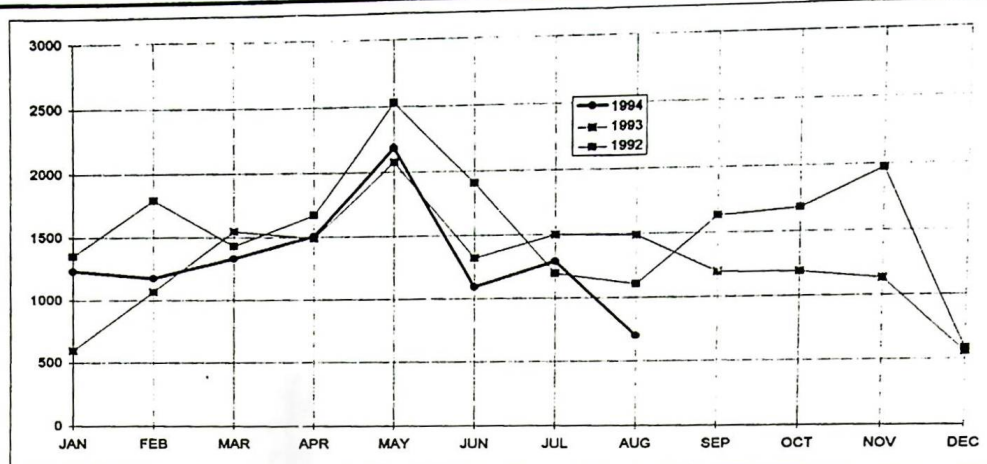
What does this mean to us?

- o We have more time to make the necessary repairs to the rolling stock.
- o 2353 can be completed, tested and on-line before the trip down the hill, which I am sure will give everyone a greater comfort level.

This modification of plans does not mean the tasks that have to be accomplished at Campo are going to disappear. We will still be holding an event at Campo and that we must be prepared for. Remember, some of these tasks, especially some of the mechanical ones, also need to be completed to support our demonstration train run. So even though the trip has been postponed, we still have a lot of work to do.

As you might have realized, especially those that are involved in operations, or ridership is down. This does not appear to be a momentary lull as in the past, but a proportional decrease across the board. This is a serious situation. Heavy expenditures are going out to support the rebuilding of 2353, maintaining the equipment, and operating the railroad and we are seeing little return. In the past we

SAN DIEGO & ARIZONA R.R. RIDERSHIP 1991-1994



	TOTAL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
RIDERSHIP 1994	10,496	1,231	1,172	1,329	1,504	2,186	1,091	1,288	695				
RIDERSHIP 1993	15,146	595	1,067	1,547	1,490	2,079	1,319	1,496	1,486	1,194	1,188	1,131	554
RIDERSHIP 1992	18,837	1,349	1,793	1,430	1,670	2,528	1,907	1,193	1,104	1,630	1,681	1,973	579
RIDERSHIP 1991	20,821	1,248	1,844	1,819	2,099	2,811	2,490	1,393	1,525	1,554	1,380	1,783	875

EXCLUDING SPECIAL TRIPS, SCHOOL DAYS, AND ANY PRESOLD TICKETS

were able to run a special trip or two to cover the slow months and then it was business as usual. That is not happening. Due to track conditions we can not go to Jacumba or Hi-Pass, two historically big revenue generators, and we were running Tecate for all it is worth. Staff and management are actively pursuing other avenues to increase ridership and revenue. However, even after other opportunities have been identified and implemented, it will take time to realize the change.

So what can we, the average Volunteer at Campo do to help? A lot!!!

CONSERVE:

Turn out lights when not needed. Just use what is required. Engineers run your trains with fuel conservation in mind. Use minimum throttle settings needed to control your train. Black smoke may be photogenic, but it is an indicator of poor combustion and wasted fuel. Volunteers, if you are finished with a piece of equipment, shut it down. Check fluid levels before operating equipment. Pay attention to the area you are operating in. Repairs, including tires, are expensive and most can be prevented.

RECYCLE:

Material can be re-used. Because a nut and bolt have been difficult to separate does not mean that they have to be replaced. Clean them up and re-use them if you can. Hardware is expensive. We all have probably seen perfectly good nuts, bolts and other hardware throw out because someone did not want to take the time to clean it up and re-use it.

RECRUIT:

Talk up the museum, sell it. Not only is each new membership an extra bit of revenue, but he/she may be just the one to perform that specific task that you need completed.

COOPERATION:

We are all going to have to work together to make this happen. The material or skill that you need may be right next door, so to speak. Before funds are dedicated for a specific task, make sure that task can not be done "in house" with available skills and materials.

With the current state of the local economy, the fact that major corporations are leaving town with resulting unemployment and reduction of public funds we are facing difficult times. However, I honestly feel that if we work together, conserve where we can and seriously watch our expenditures we will not only survive but emerge all the stronger.

"Nuff" for now, see you at Campo.

Denby

OPERATIONS DEPARTMENT

Maryanne Thompson

The ridership total for July was 1520 including school days. So far August has been very slow. Remember to tell your friends and co-workers about the Museum and promote our special trip to Tecate on September 24th. Once again, I would like to thank all of the crew members who fill in the Call Board and keep the trains rolling.

The new SP rule book additions are in and you

can get your free updated sections from George Boggs in the gift shop. Remember to start studying now as annual rules testing is just around the corner!!

Welcome to the new brakeman trainees!! After successfully completing their classes, the hands-on training has begun. It will be great having some new brakeman to fill in the Call Board. Good luck to all!!

We still need assistance in the weed clearing department. Please contact Superintendent Reneau if you can help out. Also, there are many unfinished projects for the 75th Anniversary. Time is running out and the project leaders need your help!! Please contact the project leader of your choice and pick a project, any project, and get involved!!

The next Operations meeting will be held on Wednesday, September 21st at 7:00 p.m. at the Santa Fe Depot. All are welcome and encouraged to attend. See you there!!

SAFETY CORNER

Lew Wolfgang

The subject of this month's Safety Corner is "STUPIDITY". Stupidity is something that can turn a normal, rational, levelheaded person into a klutz at a moments notice.

Stupidity can strike at any time, and the consequences when working with power tools and

heavy equipment can be truly deadly. Don't think you are immune. If the conditions are right, you too may be stricken.

What are the conditions to watch out for:

Haste- If you are in a hurry to complete something, you tend to spend too much time thinking about how late you are and not enough about the job at hand.

Fatigue- If you have been working all day, your brain really does get tired, and you become less aware of your surroundings and duties.

Overconfidence- This is a killer, you can drop your guard and do things that a more prudent person would eschew.

Physical condition- If your body isn't working well, your brain can't either. One insidious condition to watch out for in Campo is dehydration. It can sneak up on you, dulling your senses without your even knowing about it. Force fluids. If you are ill, consider turning over your duties to someone else. Our work is demanding enough as it is without having to contend with a mummy-ache.

Confusion- If you don't have a clear understanding of your duties and you don't know what to do next, DO NOTHING. It is better to take your time and risk looking Stupid than to do something in haste and actually BE Stupid.

Complacency- Never let your guard down. Always expect the unexpected. Reality has a way of sneaking up behind us and biting us in the nether regions just when we least expect it. The rulebook attempts to mitigate against Stupidity, and it truly was written in blood. Take for example rule 8.4, stipulating that a switchman stand well clear of the switch stand while a movement is going over the switch. This is to make it more difficult for you to throw the switch under a movement. Yes, Stupidity can actually make someone do this, and it is easier to do if you are standing right next to the stand. A switchman did just this on a famous passenger railroad in Colorado recently, splitting a car and causing a derailment that broke a woman passenger's leg.

Anything that prevents us from having a clear, mental picture of what we are doing has to be avoided. Any of the things I have mentioned, and probably others, can make us forget where we are and what happens next. But being aware of the danger should allow us to watch for the conditions and WAKE UP before it is too late.

And now, just to see if you are still with me, the first person to give me the name of the railroad that broke the woman's leg will take home a case, yes a full case, of Dad's Root beer! This offer is open to any Museum member, regardless of Department affiliation. Thanks for your support, and remember:

There are No Shortcuts in Safety

If you have safety on your mind, You may call at any time!

Daze 553-3106

Nites 662-9019

Praise Department

Member Randy Houk, with his Internet access, recently met an SP conductor on rec.railroad. He sent Randy sent this nice letter which I would like to share with you.

To: rh@lits.loral.com Date: Mon, 12 Sep 94 18:34:05 EDT Subject: San Diego R.R. Museum

Randy:

Thank you for the capsule history of your museum and the S.D. & A.E.

My wife and I visited your museum a year and a half ago during Easter week, and rode your train to Miller Creek behind the 1809. I was very impressed with your operation. I have been around many operating museums and tourist railroads, and the attitude towards safety runs from "get me away from this place!" at the low end, to your operation, which is definitely at the high end. Your operating people are as professional as I have ever seen!

A pat on the back to you guys, and I wish you every success with the steam operations.

Brian Black

PHONE NUMBERS

SDRM ADMINISTRATION

CAMPO

Museum Phone.....	697-7762
Business Office, Bobbie Ringersma	595-3030
Business Office Fax	595-3034
Director of Operations, Denby Jones	279-2419
Executive Director, Kay Carter	265-7682
HotScoop Editor, Lew Wolfgang	553-3106
La Mesa Depot	465-6444
Campo Depot	478-9937
Campo Car Shop	478-9917
Campo Caretaker, Thomas Lee Braginton	478-9344
Campo Gift Shop, George and Nancy Boggs	789-4210

DEPARTMENT HEADS

Facilities, Steve Wade	469-8029
Interpretation, Rich Borstadt	294-9321
Research, Bruce Semelsberger	264-7282
Chief Trainman, Mike Retz	466-8808
Mechanical, Jim Wilson	697-9544
Library, Roy Pickering	462-3392
Operations, Mike Reneau	466-5402
Restoration, Ted Kornweibel	461-0098
Safety, Lew Wolfgang	662-9019
Steam, Richard Dick	276-2222

NETWORK NEWS

In which articles from the Internet's Usnet rec.railroad are presented for your edification and further enlightenment.

The following article is a good one on why steam locomotives blow up. I am including it here for entertainment purposes only. The Museum's reference for steam operations is Superintendent Richard Dick. Any questions you have about steam operations should be referred to him.

From: gr@pulsar.commodore.com
(George Robbins) Subject: Re: Why do steam locomotives explode?

In article <342100\$qlh@tadpole.fc.hp.com> ec@fc.hp.com (Edgar_Circenis) writes: Well, since I had such great response with my last

question about what holds an articulated locomotive together (by the way, thanks; I finally saw one and all my questions (and many more) are now answered), I thought I'd ask another question. Why do steam locomotives explode when the water level drops too low? How low does it have to get? It seems to me that if steam build up is a problem when the water level drops, a pressure release valve of sorts could have been used. Or, does the engine simply melt from the heat (how would that cause it to explode)?

Ah, I feel a technical jag coming on...I'll try to be brief.

First a boiler explosion is really two separate events. First there is an initial structural failure - something splits or breaks. This often leads to a progressive failure, a split will extend, one thing breaking over-stresses the next one, which breaks and suddenly the basic structural integrity of the boiler is gone and you have the water out of the boiler. The second event is when the super-heated (above atmospheric boiling point) suddenly flashes into steam. This steam expands to many times the volume of the water and tries to leave the scene at high velocity. The "energy" of this steam can further tear apart the boiler and destroy other things in the vicinity. This, combined with the "reaction" effect of the water still in the intact part of the boiler can launch the boiler and send it hundreds of feet away.

As far as why boilers fail, first review the structure of the standard locomotive boiler. The main part of the boiler is a cylindrical tube with pipes through it - a nice strong structure. However, the "firebox" end is U-shaped, with the bottom open for the grates/ashpan/air intake and so on. The "boiler" in this part is an outer shell and the lining of the firebox. The two are attached at the bottom at the "mud ring" and supported along the sides and tops by "stay bolts", which are threaded through the sheets and then riveted over or welded to prevent leakage. This is a weak sort of structure...worse there are large temperature differentials and cycling between the fire side of the plates/bolts and the water side. The fire side is exposed to the flame temperatures, and the plates are only cooled by circulation/steaming on the water side which is limited to about the boiling point of water at the boiler pressure.

The inner/upper sheet between the firebox and the water is known as the "crown sheet". Most boiler failures result when the crown sheet overheats and loses structural strength or water rolls back over the overheated sheet flashes to steam and causes an overpressure surge quicker than the inertia or the water or relief valve can handle. Other causes of crown sheet overheating can be an accumulation of scale, sediment, slime or foaming - any of which act as insulators on the water side allowing the plates to exceed the water temperature.

Other common failure mechanisms are cracking/metal fatigue of the sheets, weakening/embrittlement due to corrosion, failure of multiple staybolts...

There are many design features to minimize the common and avoidable problems - dual relief valves, hollow staybolts to reveal breakage, sight glass plus try-cocks, periodic inspection with hydrostatic testing, fusible metal plugs in the crown sheet to blow out the fire when the sheet overheats, but these are really inadequate to deal with the case where water hits an overheated crown sheet.

Obviously the crew should "never" let such a thing happen, but over the millions of man-hours of locomotive operation, problems are going to occur. Also remember, that in the bad-old-days, engine crews put in long hours of exhausting work in hot, noisy, vibration conditions and errors due to fatigue were likely even with negligence, alcohol or equipment failure weren't involved.

Common problems were simple distraction - not watching the gauge glass closely enough, incorrect gauge glass readings due to plugged connections, failing to know when hills required extra water level to keep the crown sheet covered up & down, and optimism in the face of injector failure or low water. The crews were instructed that in the event a probable overheated crown sheet that they should dump or bank the fire and make tracks, but since this would be an admission of error, the tendency would be to try to get some water in there and keep going...

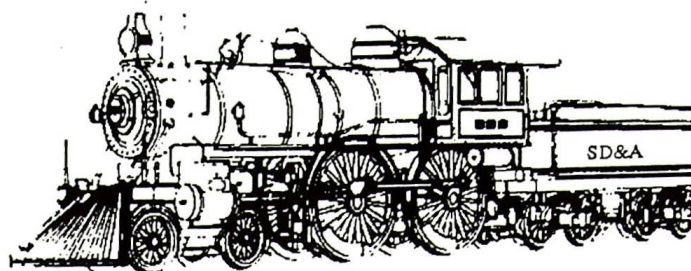
Enough? I don't think there have been any locomotive boiler explosions in the post-steam era, however there are a number of once-working locomotives side-lined because amateur engine crews did allow the water to get low, resulting in cracked or bulging crown-sheets.

As a side-light, having a boiler tube break or leak, despite the hazard to the crew, wasn't considered a big deal. The engine was allowed to cool off and metal plugs would be driven in either end. You can talk to people who will tell you about boards being laid over a banked fire or grates so that a man could enter the fire-box while the engine was still "hot" - OSHA hadn't been invented yet...

-- George Robbins -

Subject: Re: Cinders and old rail yards

In article <31r2t2\$ci@nntp.crl.com> blymyer@crl.com (Janet Fulrath) writes: Background: a property that was previously used to store lumber for a railroad car construction facility. The facility was known as the Atchison-Topeka and Santa Fe Railroad's Empire Car Shop in 1919 and the Atchison-Topeka and Santa Fe Railroad's Chicago Car Works in 1947. Apparently, "cinders" have been encountered in the soil and I wonder if anybody has any knowledge of the possible source of



these cinders. Thanks for any help you can provide.

Burning coal in steam locomotives generates ash (cinders if you're American :-). Some coal - the cheaper variety used on less important trains - generated a lot of ash. The ash is basically whatever was in the original coal that wouldn't burn and is primarily dirt and rock. The actual composition will depend on the source of the coal. I would expect lots of metal (particularly iron) and sulphur.

Railway lines used this ash as fill or track ballast in yards and branch lines. For this purpose it had a number of advantages and disadvantages.

The advantages were:

*It was cheap. Its only cost was hauling it from the ashpits where it was dumped. It also saved money; if the railways didn't use it for something they would have had to pay someone to take it away. *It made a very level surface which absorbed (drained) water well. For this reason it was widely used at depots, or yards, or anywhere where people or wheeled vehicles had to work around rail vehicles.

The disadvantages were:

*It was not very heavy, and so did not form a very stable roadbed. For this reason it was not used on tracks used by high speed trains. It was, however, quite suitable for branch lines and yard tracks - particularly compared with the alternative (usually earth ballast). *Any iron in contact with ash ballast for a long period of time would rust due chemical reactions (primarily sulphur forming a weak sulphuric acid). Most track books stressed the need to ensure that the rail was not in contact with the ash ballast.

If you are worried about soil contamination, I'd get a representative sample of the cinders checked. Note that railway companies usually sourced coal from a large number of mines; hence the composition of the ash might vary widely depending on the time that it was dumped by the company.

I'd also be worried about timber preservatives. This should not be a major problem if the timber was used for build-

ing cars as, generally, reliance was placed on preserving properties of paint. Sleepers (ties), however, were invariably impregnated with some preservative such as creosote. Sleeper depots would be heavily contaminated by the preservatives used. The departments in railways generally operated as separate fiefdoms, so a timber yard used by the rolling stock department would be unlikely to be used for storing sleepers. But I'd check for preservative contamination.

andrew waugh

From: rhino@cruzio.com Subject: Tools and parts needed. Please read.

Greetings all. Some friends of mine are in the process of starting up a short line and at the same time restore a steam locomotive. Of course, this is much easier with the right tools for the job. I have a quick list...

- Tamping picks
- Timber tongs
- Track jacks
- Automatic spike pullers
- Rail tongs
- Speeder trailers
- Magnetic base drill press

These would be for purchase. Also on the burner is the restoration of SP 2706. A Baldwin 2-8-0 built in 1904. There are a few parts missing, and they like to borrow them long enough to cut a pattern. These are...

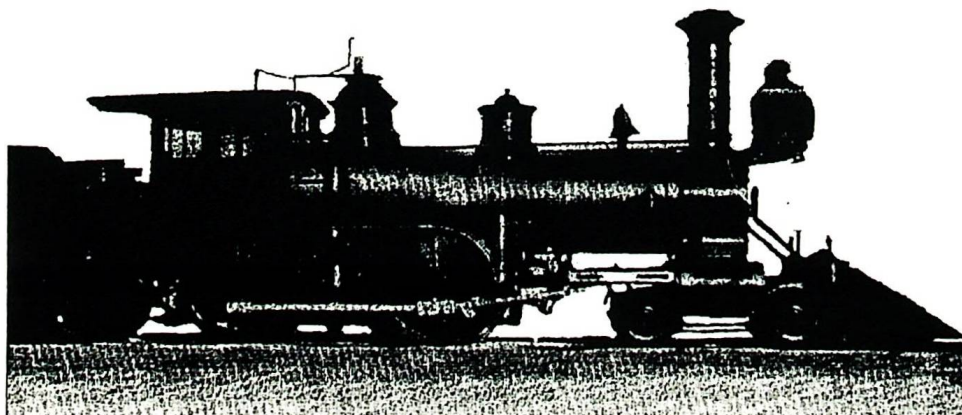
- Nathan 5 feed hydrostatic lubricator
- Pile National diving bell style class. lights
- Westinghouse S-6 independant brake valve
- Nathan reflex water glass
- Westinghouse compressor governor

If you have one of these, or a lead on one, please E-mail me. I will pass the info on to the people in charge.

Thanks in advance... -Jim Jensen
rhino@cruzio.com

DIRECTOR OF CAMPO OPERATIONS REPORT

TASK	HONCHO	DESCRIPTION	STATUS	ECD
1. Locomotive 7285 (80 ton)	D. Jones	Motors have been assembled and tested Cost Projection: Labor: \$3000 Bearings: \$1840 Races: \$940 Trucking and Misc: \$500	In Work	10/1/94
2. Locomotive 2104 (Alco)	Jim Wilson	Rear truck disconnected electrically. Two traction motors throwing groundfaults. Rough estimate of repairs, \$10,000. No action to be taken at this time. Can be used with light trains.	Limited Service	
3. Locomotive 2098 (Alco)	Jim Wilson	Continue tracing oil leaks	In service	
4. Locomotive 1809 (EMD)		In Service	Primary service	
5. Locomotive 2353	Larry Williams	Boiler being wrapped, piping being installed, machining complete	In Work	
75TH ANNIVERSARY PROJECTS				
6. 1509 Interior	Ted Kornweible		80%	
7. 1509 Trucks	Jim Wilson	Needle gun, clean, paint. Weld bushings		11/1/94
8. Car 250	Jim Wilson	Replace Brakes	Used for parts	def
9. Car 250	Jim Wilson	Repair Side Bearings		def
10. All Lacawanna Cars	Jim Wilson	Repair Sagging End sills	no man power	9/1/94
11. All Lacawanna Cars	Jim Wilson	Refurbish Car Roofs	in work	10/31/94
12. All Lacawanna Cars	Allan Dillane	General Cleanup All Cars	in work 2 completed	10/30/94
13. Coach Cars and Peary	Ted Kornweible	Clean and Wax Exterior	funded	12/31/94
14. All 75th Equipment	Wilson/Reneau	C.O.T.S all equipment	ongoing	2/95
15. Amtrak 5601	Jim Wilson	Replace Diaphragm	Deferred	
16. All Lacawanna Cars	Mike Reneau	Rewire Lighting	Deferred	
17. Caboose Row, Clean	Interp	Interior cleanup cars on caboose row		10/31/94
18. 050/1413	Interp	Interior Clean prior to 75th		10/31/94
DISPLAY BUILDING				
19. Preliminary Grading	Don Getz	Grade Construction Site for Building	complete	
20. Tracks 7 and 8	Mike Reading	Roadbed Complete, Switch in, Track 7	complete	
21. Track 14	Getz/Reading	Moved, needs spiking, ballast	in work	
22. Alco Block	V. Cook	Move to track 6 for Display	complete	
23. Fairbanks Moose Trucks	V. Cook	Set on snap-track	in work	10/1/94



DIRECTOR OF CAMPO OPERATIONS REPORT				
TASK	HONCHO	DESCRIPTION	STATUS	ECD
75th ANNIVERSITY PROJECTS				
24. Complete Restroom	Steam Team	Complete restroom renovation, car barn	complete	
25. Complete Siding	Randy Gibson	Complete Siding Installation	90%	10/31/94
26. Remove Scaffolding	Jim Wilson	Remove scaffolding from front of car barn	complete	
27. Repair car barn roof	Randy Gibson	Repair roof over tool room	complete	
28. Car barn	Steve Wade	General cleanup, interior and general spruce up	Pending	11/15/94
29. Weed Control	Steve Wade	Weed control, museum grounds	ongoing	
30. Quonset hut	Steve Wade	Erect Quonset hut for speeder shop	deferred	
31. Back 40	Thomas Bragington	General organization and clean up	ongoing	11/15/94
32. Bunk Trailer	Thomas Bragington	Level	complete	
33. Box Car	Thomas Bragington	Level/Paint boxcar at Depot	80%	
34. Public Restrooms	George Boggs	Paint/buffer screen/replace rotted wood	complete	
35. Campo Depot	George Boggs	Install RR ties/fence at depot	in-work	
36. Campo Depot	George Boggs	Landscaping installed	ongoing	11/1/94
37. Fence	George Boggs	Install fence at boarding area		10/31/94
38. Campo Depot	George Boggs	General upgrade-picnic area-repair tables	on going	11/1/94
39. Parking lot	George Boggs	Install info kiosk and flagpole	ongoing	10/15/94
40. Boarding area	George Boggs	Install brick walkway	in work	10/31/94
41. Campo Depot	Denby Jones	Repair shake roof	in work	10/31/94
INTERPRETATION				
42. Rail Buff Bluff	Rich Borstadt	Clearing and Platforms	in work	10/31/94
43. Signs	Rich Borstadt	Develop copy, fabricate and install	in work	11/1/94
44. Speeder Display	Allan Dilane	Set up speeder display at Depot	in work	11/1/94
45. Baggage cart	Rich Borstadt	Set up Baggage cart display at Depot	in work	11/1/94
46. Caboose Row	Jones/Reneau	Placement of Cars. Caboose row		10/31/94
47. House track	Jones/Reneau	Placement of Display cars on house track		10/31/94
48. Caboose row	Borstadt/Wade	Stairs/walkways/safety chains		10/31/94
49. House Box string	Borstadt/Wade	Stairs/walkways/safety chains		10/31/94
50. Horse/baggage car	Borstadt	Complete phase 1	ongoing	10/31/94
51. Alco Block	Borstadt	paint		10/31/94
52. F.M. Trucks	Borstadt	Clean and Paint		10/31/94
53. RPO Car	Jones	Relocate to track 3 or 4		10/31/94
54. RPO Car	Wade	Fabricate Stairs		10/31/94
55. Robert Peary	Jones	Move to display string at house track		10/31/94
OPERATIONS				
56. Contaminated Earth	Wolfgang	Dispose of properly		10/31/94
57. East Lead	Reneau	Ballast/tamping	hold	
58. East Lead	Reneau	Weed control	ongoing	
59. Right of Way	Reneau	Inspection	weekly	
60. Special Train	Reneau	Staff 75th special	deferred	
61. Community Weekend	Reneau	Staff Trains		
62. Hotscoop	Wolfgang	Get out on time	never	

SDRM TimeCard

[illegible]

September 1994

9/2/94 1:36 pm

wolfgang@right

Sun	Mon	Tue	Wed	Thu	Fri	Sat
August M T W T F S 1 2 3 4 5 6 8 9 10 11 12 13 15 16 17 18 19 20 22 23 24 25 26 27 29 30 31	October S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31			1	2	3
DO Dick	5 DO Kornweibel	6	7	8	9	10
DO Reneau	12 1830 Staff Mtg SFD	13	14	15	16	17
DO Wade	19 1830 Staff Mtg SFD	20 0900 fraud brief	21 1900 Ops Mtg SFD	22	23	24 0800 Tecate Xtra
DO Wilson	26	27 1830 Board Mtg SDT	28	29	30	

Month view by Calendar Ma

The Hot Scoop
San Diego Railroad Museum
1050 Kettner Blvd.
San Diego Calif. 92101

(September 1994)

