



San José-Santa Clara Regional Wastewater Facility

CAREER PROFILE QUESTIONNAIRE

Name: **Russell Knab**

Job Category: **Heavy Equipment Operator**



1. Please describe the work you do:

We follow a specific method to ready the residual solids yielded in the wastewater treatment process. First the sludge is dredged/pumped to a drying bed. Next we aerate it to help dry. After drying the substance to dirt like quality, we haul it off site. Finally we restore the drying beds to start the cycle again.

I operate large, heavy construction equipment that are used to dredge lagoons, aerate biosolids, load trucks, restore drying beds, and grade roads.



I use a dredge (in combination with a piping system) to pump the liquefied sludge into the drying beds.



In order to aerate the material we use a modified 963 track loader with an auger attachment. The auger turns the biosolids to help it dry quicker.

I run a large loader (980 or the like) to pick up dried biosolids and load it into bottom dump trucks in order to transport it to the local landfill.

I operate a Caterpillar Grader to grade large areas of land that is used in the process of drying biosolids.

2. What combination of education, vocational training, apprenticeship, experience, and/or skill did you obtain in order to be qualified and selected for your job?

After high school, I attended two years of college in general studies. Then I did a four year heavy equipment operator apprenticeship with Local OE3. I qualified in five pieces of equipment. That means I demonstrated competency to operate a loader, backhoe, dozer, scraper and bobcat, along with grade setting.

The skills I learned in my apprenticeship, as well as on the job experience helped me get to where I am today.

3. What do you like best about your job?

I enjoy working on projects and seeing the outcome, operating a variety of large equipment, working outdoors and steady work.

4. Please tell us about the projects and activities you have enjoyed most in your work in the water/wastewater field, and what made them rewarding,

Every year we keep a few of the drying beds out of service to restore. These beds need to be restored to a specific elevation in order for the drying process to work efficiently. I look forward to operating the grader, and using laser equipment to create the proper slope. When these beds are eventually being filled, I like to see how the liquid moves as a result of my sloping preparation.

5. What qualities and capabilities are needed in order for a person in your area of expertise to be successful in the water/wastewater industry?

You will want to be able understand, remember and follow directions. It is important to be a team player, and be able to give and receive constructive criticism. It helps to know how to use a GPS (global positioning systems). You must like to work in inclement weather. You cannot be afraid of getting dirty (while using the proper personal protective equipment (PPE)!

6. Do you have any advice for an individual who is considering pursuing a career in your field in the water/wastewater industry?

Finish high school. Learning your basic algebra and geometry in high school will serve you well. Get in an apprenticeship program. Learn as much as you can. Take advantage of any opportunity to get hands on training. (I started out washing cars in a construction company.)