

**REMEDIAL PROJECT MANAGERS' MEETING MINUTES
NASA/JET PROPULSION LABORATORY
21 JUNE 1994**

Attendees: Organizations represented at the Remedial Project Managers' (RPMs') Meeting included the following:

- U.S. EPA (EPA)/Federal Enforcement Branch, Region 9, San Francisco, CA
- California EPA/Department of Toxic Substances Control (DTSC), Region 3
- NASA/NASA Resident Office, Jet Propulsion Laboratory
- Los Angeles Area California Regional Water Quality Control Board (RWQCB)
- EBASCO Environmental, Contractor to JPL

A list of individuals attending this RPM meeting is attached to these minutes.

INTRODUCTION OF NEW MEMBER:

Huff: Introduced Peter Robles, Jr., as the new NASA RPM for JPL. Introductions around the room. Robles described his background.

OBJECTIVE:

The purpose of the NASA/Jet Propulsion Laboratory meeting held on June 21, 1994 at the Jet Propulsion Laboratory in Pasadena, California, was to discuss the following topics:

- Progress on Field Work Associated with Field Sampling and Analysis Plan for OU-1
- Projected Schedule for Field Work Associated with Field Sampling and Analysis Plan for OU-2
- Status on OU-3 Work
- Background Soil Samples
- Fact Sheet #4

1. TOPIC: PROGRESS ON FIELD WORK ASSOCIATED WITH FIELD SAMPLING AND ANALYSIS PLAN FOR OU-1

Buril: Where NASA stands right now is that they are currently sampling the OU-1 wells. Wells #1 and #6 have been completed thus far, and we are now working on well #14. We are going to be continuing on through the series of wells for the next three weeks. This includes wells #1 through #16, with all screens and multi-port wells. As you may be aware, this series of samples is not going to be analyzed for aluminum and semi-volatile organics. We are in the process right now of changing the contracts to allow the next sampling—tentatively set for the October time frame—to allow for sampling of the semi-volatiles as well as the aluminum. NASA will follow essentially the same sampling regime as identified in the Work Plan and Quality Assurance Project Plan for this round, with the additional analyses added on for the next round. In terms of schedule, NASA is "in process" to change the contracts, and everything thus far looks good in terms of doing the follow-up sampling in the October time frame to represent the dry season. Depending upon the weather, we do not anticipate any changes in the schedule presented to you in the letter dated June 7.

Swarthout: Now that the draft RI is going to be submitted on May 31, 1995, instead of September 1994, does NASA have any information on what the sources of contamination are for OU-1, or the source of contamination at the site? I'm just thinking ahead and wondering. Once we get this round of sampling done and the second round done, is that going to supply enough information to write an RI and an FS?

Buril: The exact location of the sources is still something that we're trying to understand. Information is available to us now, which we are going to be supplementing with this current round of information. That information leads us to believe that the sources were definitely on-site in terms of contamination of the ground water around the eastern portion of the Laboratory. There is still considerable speculation regarding what contribution, if any, is being made by the City of La Canada and their past practices, as they are directly upgradient. One of the things that presents itself as a point of interest is that at the well they have at their headquarters, which is about a quarter to a third of a mile away, they have a seasonal increase and decrease in contamination levels. It seems to be tied to wintertime, or the February-to-March time frame, when there is an increase in water level. They see a corresponding increase in contaminant levels. When the water level falls off, the contaminant levels fall off.

The contaminant they are most concerned with—in fact, it is their overriding concern—is perchloroethylene. NASA doesn't have perchloroethylene much at all here on-site, so there is a question about what effect that area is having on our site. Part of our work now is focused on what might be coming onto this site at depth. That is based on information from wells #6 and #14, well #14 being the multi-port well. The information from that well should give us the vertical component.

Buril (cont'd): Well #2 is the well that was put in by the Army Corps of Engineers. I think the story is that when they drilled the well the drilling costs got out of line, so they stopped before the well was drilled to the depth it needed to be drilled. Over the past several years it has been dry. Then, when we had some fairly intense rains during the past two years, we began to see water in it. We began checking it during this round, and we have seen a fairly rapid drop-off of water here, as well. In terms of the source locations, we think that the seepage pits are probably good candidates here on-site, but there are still questions about potential off-site sources that we are trying to resolve.

Melchior: There should be ample data to go on for the RI. However, there will always be loose ends no matter how many wells we dig or how many times we sample.

Swarthout: There is always the flexibility that in places where there are datagaps that we need to fill we can fill them during our RA. My other question is this. I was reading the Work Plan, and I am wondering if we have, in addition to the sources, any sense of the overall contamination on the Lab. Is it a plume, is it a single plume, is it a mix of a bunch of small plumes?

Melchior: I think it is too early to speculate about that. I think Chuck's point is well taken that there is something out there. The effect of the upgradient area on the site is not known. Nor do we know the influence of off-site pumping. That will come with time and will be part of the RI. But to look for some sort of textbook example may be premature. In the past, the agencies have asked for plume maps, but the situation is not yet that well defined.

Buril: Five new wells have been placed to try to answer some questions raised from data obtained to date. It's a very curious scenario, when you look at wells such as #1, which is right up against the property boundary and well into the northeast quadrant of the Lab. This is where there appears to be most of the potential sources. And yet, from the beginning that well has been clean across the board. The considerations are to determine its proximity to the Arroyo, whether it is screened properly, whether it is above or below the fault, etc. There are a lot of things that have to be factored in. But then you find that the next well down is well #9, which has shown only very tiny amounts of contamination. Well #12 is the next one coming down from the edge of the Arroyo. NASA is trying to find out if there is something coming down from the direction of well #7 to well #3, and whether that actually shows us the center of a potential plume.

Niou: Have you done any groundwater modeling?

Melchior: The hydrogeology study is a part of the RI. Right now, the stratigraphic controls are being looked at. A numerical modeling effort recently started, but there is still quite a bit more to do. The hydrogeologic study encompasses both the stratigraphic and geologic components of numerical modeling and a general understanding of the hydrologic head.

Buril: In the ten standpipe wells there are transducers. They are not in the newest wells. These allow us to record snapshots in time at six-hour intervals. So, there is the ability there to calibrate, to some degree, the numerical model to reflect what can actually be seen during the fluctuations in the water table. This allows us to make the best predictions of what is going on. There have been some awesome changes in the water table here.

Swarthout: You said before that the geology here is very regular. But the more I look at it, the more I feel that—whether or not the geology is homogenous—it is going to be a very complicated site, based on the fault, the arroyo, the alluvial fan, and the pumping from the wells.

Cutler: What was seen from two years of data gave us a good idea of what is going on at the site. Both years are very different. We came off several years of drought to a 100-year storm last year. This year may have more normal conditions. Also, the city turns on the pumps whenever it's cheaper to pump than to buy water. That generates the pumping schedule rather than the seasons.

Swarthout: Which is something that we have no control over. Is Well #7 typically the well with the highest contamination? Buril: Thus far, yes. Swarthout: Does that follow through to whatever well is between #7 and #12? Buril: At well #8, it is believed that there is some contamination, but it dropped off fairly radically. The drop-off was about one order of magnitude. Swarthout: What about #12? Buril: Well #12 is brand new, so it was not sampled. Swarthout: What is the dip on the fault? Cutler: About 40 to 45 degrees. JPL has had some studies done on that fault. They did some coring that hit the fault and the basement. We hit basement south of the fault. Very little of the site is North of the fault. Swarthout: So, when we drilled #7 we did not hit basement level? Melchior: No. That was not achieved. The source seems to be south of the fault.

Buril: There is not an exact trace of the fault at every location, but based on everything NASA's been able to discern it's south of the fault. Melchior: You also have to remember that this is not a knife-edged fault. It's more of a smearing of sand on sand. Cutler: It is not suspected that there is a fault plane barrier that would affect groundwater flow. Swarthout: In other words, you don't think the fault may be a preferential flow path? Cutler: We don't have any evidence to suggest that. Swarthout: Is there any indication of why the highest level of contamination is at well #7? Buril: No, there isn't. That's part of what the OU-2 work will determine. You can see from the map that there are a number of red dots closely surrounding well #7. The actual history or use of these things is not known. That's part of the problem as we go through all of this. Well #60 should reveal if there is contamination here that is leaking into well #7.

Swarthout: I am familiar with a firm that does seismic studies and has adapted a lot of oil field technology for sites like this. Would something like that would be applicable here? Melchior: Geophysical characterization of the site received serious consideration at the beginning of the project. Part of the problem was the large

difference in size of the materials. There were large boulders as well as sand. Cutler: There were a lot of cultural noise here, such as traffic and power lines. Swarthout: They talked a lot about finding faults and looking for faults. Melchior: Typically you'll find that geophysical methods are most appropriate for areas with very little cultural disturbance. Swarthout: Let me summarize item number 1. The draft RI is going to be in May 1995, and we feel that the two rounds of sampling we'll get between now and then will be sufficient to reach RI.

Buril: That, in conjunction with some of the information from the past work that was conducted, which will validate that information, will provide good "post" data upon which to draw to tell us what happened here. More importantly, it allows NASA to get to the FS stage, and ultimately to ROD. But there may be more work done in the remedial design phase to help round it out, so that if we choose a remedial action we will have enough data to allow us to focus on that. Melchior: That's the snapshot as of today. When we get to January and have two rounds of sampling data along with hydrogeologic information, we'll be revisiting that issue.

Buril: Nobody knows how much rainfall we will have this year and how it will effect the hydrology in the area. Part of what we want to do with the model is to understand what would happen if we had a drought or major pumping or influx of water, etc. I view that as something that would be speculative to some degree but still the best scientific approach we could take at this point. The only other course would be to sit back and watch what happens for several years.

Swarthout: I wanted to make a couple of comments about this schedule. First, when you have your public comment period, you have to have a public meeting also. Secondly, your schedule calls for a 60-day period for us to provide comments, then another 60-day period for you to respond. Typically, we have added another 30-day period on the end for the document to go final, so it is 60/60/30. The important dates right now are the submittal dates for the documents. You don't have to revise the schedule necessarily, but I wanted you to know what the process is.

Buril: Any other questions on OU-1? NASA's moving out smartly on this thing, and barring any nightmares from turbidity it is hoped that there will be no problems with the sampling. Thus far, the samples have cleaned up nicely. There is one question I would like to put before the agencies, however. The project was stalled horrendously through the development of a couple of wells here on the site. Our ability to get down to five NTUs in dealing with turbidity has always been somewhat marginal. We've been able to do it in the past, but sometimes only with extremes of time and cost. I'm wondering what the agencies' response would be if we had pumped enough water to know that we definitely are dealing with formation water and our conductivity, pH, temperature, and turbidity are stable, although the turbidity is somewhat higher than 5 NTUs. What would be the response of the agencies if sampling was conducted at that point rather than continuing to pump in an effort to get the turbidity down.

Melchior: Typically, we're looking at NTUs that are greater than five but less than fifteen.

Nakashima: The volatile data would be suspect. Melchior questions the effect on volatiles. Nakashima believes that high turbidity causes lower levels of volatiles. Nakashima will research the question and get back to Buriil.

Buriil: This is a consideration not only in terms of money, but also in terms of time. You don't want to take weeks and weeks to get the last 5 NTUs, particularly if there is not much of an impact—and perhaps not a measurable impact at all—on NASA's ability to give a true answer.

Madyun: This is the season during which you have to take your samples. RWQCB guidelines would say to take your samples. Buriil: The samples are being taken. My concern is what will happen if we are pumping and pumping, purging and purging, and we can't get the NTUs down below, say 11 or 12. Let's say we have this goal of five, and everything else is stable. In this situation, does it make sense to continue that approach? Five NTUs, as opposed to something higher, may not have any effect on the analytical outcome.

Niou: What's your pumping rate?

Cutler: It's more of a concern in the less big wells. There, you might take 40 minutes to come up with one meter of water, then spend another 40 minutes taking your readings. If you tried to develop a purge at this point to get it down below 5 NTUs it could take a week. Robles: I'd like to suggest that Penny go back to her agency and get information on whether it is possible for us to get this waiver. The same thing with Brian and Gale. Madyun: Our guidelines would tell you to take the sample. Five NTUs is a goal. Get them down as low as you can, and make sure everything else is stable. As long as you show that everything else is stable, we'd say go on and sample. [Madyun confirmed this statement with her management after the meeting and called Buriil to reiterate that RWQCB has guidelines rather than requirements for NTU levels. She stated that NTU levels were considered on a case-by-case basis and went on to confirm that, as long as temperature and conductivity had stabilized, the sample could be collected.]

Cutler: What we think might be happening is that we drill this well where there is 400 feet of aquifer with a mud rotary. We'll clean up this little ten-foot screen to acceptable levels then go away for a week. The natural downward flow will bring mud from above that screen back into the screen. Niou: At another Superfund site they also had a turbidity problem. The agencies worked very closely with an Air Force base to develop a method of trying to get to low NTUs as soon as possible. First, they set the goal at 10-15 NTUs. Second, they tried to pump it dry and encourage the mud to come as early as possible. They waited until it picked up, then they pumped it dry again. They found that was the fastest way. When they finally finished it, they had to pump very slow, like one liter per minute.

Buril: That must have been in a formation that was reasonably low-yield. NASA is not in that position here. You will never pump these screens dry. You have production wells across the arroyo, and they yield 3,000 to 4,000 gallons a week. So, unfortunately, that method is not going to work here. Randolph: These wells pump well over ten gallons per minute with only a tenth of a foot drawdown. Cutler: Five Baker tanks of water were pulled out of Well MW-12. That's over 100,000 gallons of water without reaching 5 NTUs. Swarthout: If the pH and conductivity have stabilized, as long as it's down close to 15 NTUs, it should be OK. Buril: Fifteen or less? Swarthout: Yes. That sounds good.

Buril: NASA would still be interested in anything that Penny has to offer in terms of that information. Nakashima: We can also look at the data from the screens above and below the screen with the higher turbidity. Buril: (to Nakashima) If you do identify a real concern that would impact the sampling, we would like to know as quickly as possible.

2. TOPIC: PROJECTED SCHEDULE FOR FIELD WORK ASSOCIATED WITH FIELD SAMPLING AND ANALYSIS PLAN FOR OU-2

Buril: Everything is moving forward right now. We are in the process of modifying the contracts to install the 24 nested vapor wells that were identified in our NASA's proposal. It's anticipated that the work should be completed in the next few weeks, and that we will be in the field, ready to drill, by mid-July. But once we are in the field, we will be progressing pretty much as the schedule in the June 7th letter indicates. We have hopes that things can get done more quickly, if everything works out well.

Buril: That's the schedule that as it stands now, and the change of scope has been identified in the letter. The sequence of events, then, for sampling, is that we will take the first series of samples within about two weeks before the completion of the waiting period when the last well is constructed. What that does for NASA is that the wells can be sampled in such a fashion that when the full waiting period for all of the wells has been completed, we will have the most compressed sampling period. In other words, all the wells will be compressed into one snapshot of time, rather than having temporal variations to such a large degree. Once they have that information, they will get the second round of samples during the second two-month waiting period, then they will compare the two sets of samples to see what is going on. That will be the basis of the information for the RI in terms of the soil vapor. NASA will be doing the soil sampling at the same time that they install the wells.

Swarthout: How many sample points are there going to be in each vapor well? Randolph: A maximum of five. Buril: The spacing of those points will be determined by where we hit water. Swarthout: To summarize, the RI is going to be in May 1995. Regarding the review of the ROD, you only have a month on the schedule for EPA's review. I think we're going to need two months. Melchior: The RI for OU-2 is set for the end of September. Swarthout: I'm sorry, I was looking at OU-3. RI is October 5.

Niou: Will you be doing any treatability studies during the OUs? Melchiar: We would do that during the feasibility study. Buril: We need to know what we're dealing with in terms of the forms of contamination, the levels of contamination, the locations—everything you would want to know, obviously, to be able to eliminate or hold onto different remedial scenarios. A treatability study during that time frame would be, I think, premature, because we won't have all of that information available to us at that point.

3. STATUS OF OU-3 WORK

Buril: We are currently preparing to be in the field for drilling by the latter part of August. There are a number of things they are preparing to do right now. Our community relations efforts are being kicked into full gear, and a major part of that is in your handouts. You have Fact Sheet No. 4 that has incorporated in it the comments generated by the agencies. I would ask that you please get back to NASA by Friday of this week. This form is a critical part of the community relations effort, which we want to put into play within the next two to three weeks. Assuming that we get into the field in late August, our first sampling would take place in the November time frame, which corresponds to the dry season. I believe you will be pleased at how we have responded to the comments you gave us already. I'm looking to finalize this thing at the beginning of next week. We will take it to Design Services and have it printed up in a format very similar to what you've seen with the previous fact sheets.

Robles: Contact numbers have been added for each of the regulatory agencies. Specifically, Brian has his personal number on the fact sheet. Madyun: Could we put Hank Yacoub's name back on the Fact Sheet, along with his phone number? His number is (213) 266-7500. Buril: Yes. Robles: The information for the repositories where the public can review the documents is also listed. Buril: That information is available to them in all fact sheets. Swarthout: Who's phone number is listed for JPL? Buril: That's our Public Affairs Office. They have all of the documents, the same things that are in the information repositories. If it's a very technical question, with which they feel uncomfortable, we go to a technical expert on-Lab for an answer, that would be me. Robles: They also keep a log of all calls and ask callers if they want to be on our mailing list? Buril: Yes.

Swarthout: How will this be distributed? Buril: Our thought is that we will meet first with city officials. The plan is to go in and meet formally with people such as city councils, mayors, and city managers of La Canada, Pasadena, and Altadena. We will let them know what we will be doing. After the city officials have been briefed, we will provide this fact sheet to our mailing list of approximately 12,000 residences around the area. In addition, in the areas immediately around the well locations themselves, they plan on generating a more specific letter that will be hand-deliver to nearby residences. They are also contemplating having a JPL or NASA representative available at given times at the locations, if people want to come up and ask questions. This is something NASA could probably incorporate very easily.

Swarthout: I think it would be very good if NASA could notify the people who live right around the wells. Buril: That's the goal. In fact, they did that with well #14, and it went over very well. Robles: The biggest thing is that people be made aware that there is someone they can talk to. Buril: The hallmark of our approach is being up-front, honest, and very forthcoming with information in a proactive, not a reactive way. Madyun: I think its a very good idea to have someone available at the rig. Swarthout: Maybe just have someone there for the first couple of days.

Buril: NASA plans on having information available at the sites, in addition to the information that is distributed. Robles: If someone called in and asked for a speaker to come to their organization meeting, what would you do? Buril: That is built into the Community Relations Plan.

4. BACKGROUND SOIL SAMPLES

Buril: This is something that just came up about a week ago. There was a mistake on the part of the analytical laboratory that they did not get the soil samples analyzed for hex chrome. What's envision is going back to the same locations and resampling at the same depths, being certain to analyze for hex chrome in the time frames identified and get that number for those two background samples. There was some discussion as to whether we might want to have total chrome analysis as well, but I don't see a need for that from the previous sampling thats been done. The decision is up to the agencies, however.

Swarthout: I don't think it's necessary. Buril: Then we'll just focus on hex chrome. As a side point, NASA will begin to get some of the data back from the soil sampling we did in the wells, and the indications are that the hex chrome is non-detect across the board. So hex chrome may be a non-issue here.

4. ACTION ITEMS (Agenda item #7)

Buril: I would like to bring you up to date on the action items from the last meeting.

- "Provide a more detailed map of the locations of the wells." It is believed that this was provided to Phil Chandler, who was the original requestor.

Nakashima: I have one comment. Maybe if we had more pieces of the map to put together. What I'm trying to do is get a perspective on the distance between all of the sites where you are putting the probes in. Could I get back to you and request the portions I need?

Buril: That would be fine. In order to have a decent, deep understanding of that, it's probably better to walk out onto the site. All of the locations marked. We'd be happy to provide that information to you, but it might be to your own benefit to come out and look at the locations you have a concern with, to be sure you understand the scale.

- "Teleconference for March 22." (Closed)
- "Getting Information from the Raymond Basin Management Board on the laws regarding adjudication of the basin." I've contacted the Raymond Basin Board, and they have agreed to provide to me the superior court ruling on adjudication of the basin. It's a reasonably thick document, I've been told, which outlines the reasons and legal mechanisms of adjudication of the basin. Hopefully, I'll be able to pick that up next week. Beyond that, I'm not sure what more they can offer us. The chairman of the board, Ron Palmer, is very cooperative, but he made it very clear that any time we planned to withdraw water from the basin we are going to be subject to that superior court ruling. He did say, however, that if we take water out and put it back, with negligible loss, there is no impact. The biggest thing they are concerned about is the impact that the removal of water would have on the ability of the water purveyors to take water from the basin to supply to their customers.

Discussion of how adjudication issues could affect the project. Buril: I could see this becoming a very hot issue with the Board. Swarthout: It might be something we would want to consider, but it is not something we would call an ARAR. An ARAR has to be promulgated and has to be something that is widely applicable to numerous sites, not just one site. It might be something like a TBC. Melchior: I'm not concerned with treatment of the water but with the ability to extract it. Buril: What happens to the water after it's been extracted? Madyun: We have some way to deal with it. I don't know what it is, but I know that in the San Gabriel Valley, to pick one area, with all of those little water boards, there is some way to deal with it.

I will discuss the issue with Hank Yacoub and get back to you. Swarthout: I will also ask our attorney about this. The issue of ARARs is something we should be discussing all the time, not waiting for the FS because it is going to be the biggest sticking point. Robles: Have the RPMs given us a list of ARARs. Buri: Penny submitted that list quite a while ago.

- "Letter of Agreement Regarding suspension of soil sampling at monitoring well installations. Novelty: We pointed out the technical difficulties that we were having in attempting to recover samples. A great deal of time was involved in numerous attempts to recover samples. Equipment was being damaged. We also pointed out that no visible contamination had been noted in the wells sampled prior to the meeting. However, the main reason was that the wells were deliberately located in areas where we have no reason to suspect surface contamination. This was done so that there would not be a possibility of providing a conduit for contamination to migrate to the water table. Therefore, there is not sufficient reason to continue with the sampling. We had discussed that at the last RPM meeting and had agreed that it was alright to discontinue further attempts at sampling at the remaining two wells. Buri: NASA also noted in the letter that if any indication of contamination was noted that the sampling would immediately resume. In fact, no contaminations was seen. Novelty: This letter points out that it was agreed at the meeting that this letter along with the agency letters accepting this letter will be attached to the back of the affected documents. These attachments will be considered the addendum. So, NASA will be expecting you to respond to this letter so that those attachments can be put into the repositories.
- "Phil Chandler visit in March." Buri: Phil was here. (Closed)
- "The Federal EPA putting us in touch with their ecological expert. That was Dan Stralka." Buri: That took place some time ago. I can report some progress on this on the basis of that meeting. EBASCO has put together an outline of the risk assessment procedure. I received that just this morning. Swarthout: Dan Stralka seemed to think that everything was fine but we would like to see the outline. (Closed)
- "Method of Hex-Chrome Analysis." Buri: That has been done. (Closed)
- "Providing the modified pages..." (Closed)
- "Updated Figure 6.5." Buri: I remember sending that out. (Closed)

TOPIC: SCHEDULE FOR THE NEXT MEETING

Buril: I would like to lock this in concrete. I would suggest the last part of August. By then, NASA should be in a position to identify where they stand on all three operable units. August 23 was set at the date for the next RPM meeting.

Buril (to Nakashima): Were you planning to analyze the split samples for aluminum and 525? Nakashima: I will have them analyzed for aluminum, but not 525. Buril: Let's assume that you find something in your aluminum analysis. What impact, if any, do you see that particular data point having on our project, on the future sampling, etc. Swarthout: I think it would just be a kind of screening data point. Nakashima: So, you're saying that we would not use this data in a quantitative sense, but only as a screen? Buril: That's the thought right now, because it's not part of the project QA process.

Action Items

- Madyun will send NTU guidelines from RWQCB.
- Nakashima will provide information to show what impact turbidity has on analytical results.
- All agencies will do final review of Fact Sheet #4 with comments to Buril by Friday, June 24.
- Hank Yacoub's name and phone number will be added to Fact Sheet #4.
- Nakashima will inform as to what she needs for soil vapor maps.
- Madyun will check to see what effect the Raymond Basin Adjudication will have on the project.
- Swarthout will ask EPA attorney about basin adjudication issue.
- Agencies will respond to OU-1 soil sampling change letter so that WP and FSAP OU-1 can have letters attached as addendum.
- Next RPM meeting will be Tuesday, August 23 at JPL.
- Swarthout will respond to schedule request letter.

Robles: Is it the case that the agencies have accepted all of the scope changes included in the letter from NASA to the agencies? Agencies: Yes.

ENVIRONMENTAL AFFAIRS OFFICE
MEETING ATTENDANCE RECORD

SUPERFUND RPM MEETING
June 21, 1994

Please print the information requested below and pass this sheet along to the next person. Thank you.

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