

SOCL

RUSSELL SOLE SOURCE AQUIFER

Ground Water Quality Technical Report Number 9

Russell Sole Source Aquifer Ground Water Monitoring

Nez Perce County, Idaho

Prepared by Wade Melton



Lewiston Regional Office Idaho Division of Environmental Quality March 1997



Table of Contents

Acknowledgments	1
Abstract	ü
Introduction	1
Purpose and Objectives	1
Review of Previous Work	1
Study Area	2
Hydrogeologic Setting	4
Materials and Methods	5
Selection of Wells for Sampling	5
Monitoring Parameters and Rationale	6
Sample Preservation Methods and Holding Times	8
Frequency of Sample Collection	8
Results	8
Lewiston Levee Landfill	9
McCann and EKO Wells	10
Tammany Creek	12
Lindsay Creek	14
Lapwai	15
Conclusions	15
Quality Assurance/Quality Control	17
Literature Cited	19
Appendices	20

Acknowledgments

Mann for all his work on this project and for allowing me to be involved. Hudson was instrumental in getting the project started and provided valuable expertise throughout. John Cardwell provided numerous documents and valuable ground water technical advice. Donnie Edwards provided additional materials and guidance. I would also like to thank Jim Beliatty for continually supporting my efforts. LeRoy Seth helped me gain access for ground water sampling on Nez Perce tribal lands in Lapwai. Finally, I would like to thank the US Army Corps of Engineers, EKO Composting, Tammany School, and all the private landowners who allowed us to sample their wells.

Abstract

The City of Lewiston's municipal and industrial ground water is drawn from the Russell Aquifer, a federally designated sole source aquifer. Various contaminants including volatile organic chemicals, chloride, nitrite/nitrate, metals, and pesticides have been detected in local monitoring and private wells. The detections have resulted in a need to further define local ground water conditions.

The purpose of this project was to document ground water quality in some areas of known contamination, to determine the persistence of various contaminants over time, and to provide baseline concentrations for pollutants not previously studied.

Sampling for this study took place at several locations in the Lewiston and Lapwai areas. Sampling wells included the Lewiston Levee Landfill, the EKO and McCann wells near the Twin City Foods wastewater land application site, and private wells in the Lindsay Creek, Tammany Creek, and Lapwai areas.

The results of the study suggest that nitrite/nitrate contamination remains a problem in the Lindsay Creek and Tammany Creek areas. Two private wells at Lindsay Creek and one well at the Tammany Creek School tested above the MCL of 10 mg/l. Nitrite/nitrate concentrations in the EKO and McCann wells remain high as well, although the source of these high concentrations is difficult to assess.

Volatile organic chemicals (VOC), metal, and pesticide contamination does not appear to be a concern at the present time. VOC and metal samples taken at the Lewiston Levee Landfill all tested below the instrument detection limit. Pesticide samples from various Lewiston locations all tested below the detection limit as well.

The private wells in Lapwai do not appear to be strongly affected by the nearby sewage lagoons. However, the nitrite/nitrate concentrations at each well were above 1 mg/l - a sign of human influence. Additionally, their close proximity to the sewage lagoons indicates that the wells should be closely monitored in the future.

INTRODUCTION

The City of Lewiston's municipal and industrial ground water is drawn from the Russell Aquifer, a federally designated sole source aquifer. Various contaminants, including volatile organic chemicals (VOC), chloride, nitrite/nitrate, metals, and pesticides have been detected in local monitoring and private wells. These detections have resulted in a need to better define present local ground water conditions and determine persistence of the pollutants over time.

Potential sources of ground water contamination to the Russell Aquifer include:

- 1. A hazardous waste landfill
- 2. Various industrial sites
- 3. A waste water land application site
- 4. Area agricultural practices
- 5. Livestock feedlots
- 6. Residential septio systems and sewage lagoons.

PURPOSE AND OBJECTIVES

The purpose of this study was to document ground water quality in several areas with known contamination sources, to determine the persistence of various contaminants over time, and determine baseline concentrations for pollutants not previously studied. A number of monitoring and private wells that have been the subject of previous detections were resampled in the Lewiston area. Additionally, several private wells were sampled on a portion of the Russell Aquifer recharge area near the City of Lapwai.

REVIEW OF PREVIOUS WORK

The Lewiston Levee Landfill ground water monitoring wells were sampled by the US Army Corps of Engineers during a Lower Granite reservoir drawdown in September, 1992. VOC's samples from these wells displayed detections of toluene, methylene chloride, acetone, and

several other compounds. There were also detections of various metals (antimony, arsenic, chromium, lead, mercury), one pesticide (alpha-BHC), and nitrite/nitrate.

The McCann and EKO wells were sampled in 1995 and earlier (Ralston, 1995) in an effort to assess the impact of the nearby Twin City Foods waste water land application site. The Ralston document summarizes previous ground water sampling efforts at these sites. Over several samples taken from April 1993 to September 1995, the EKO well's nitrite/nitrate concentration ranged from 9.9 to 20.1 mg/l. The chloride concentration at the EKO well ranged from 615 to 1190 mg/l. The McCann well was also sampled previously; twice in 1989 and once in 1995. The nitrite/nitrate range from these samples is 10.0 to 13.0 mg/l. Chloride samples, taken in 1988, 1989, 1991, and 1995, range in concentrations from 7 to 104 mg/l.

The Division of Environmental Quality (IDEQ) sampled the Lindsay Creek area in July, 1988. Numerous houses with shallow dug wells and deeper drilled wells were tested for nitrite/nitrate. The concentrations for the shallow dug wells in the area ranged from 2.02 to 10.6 mg/l. The nitrite/nitrate concentrations for the deeper wells ranged from 0.006 to 7.99 mg/l.

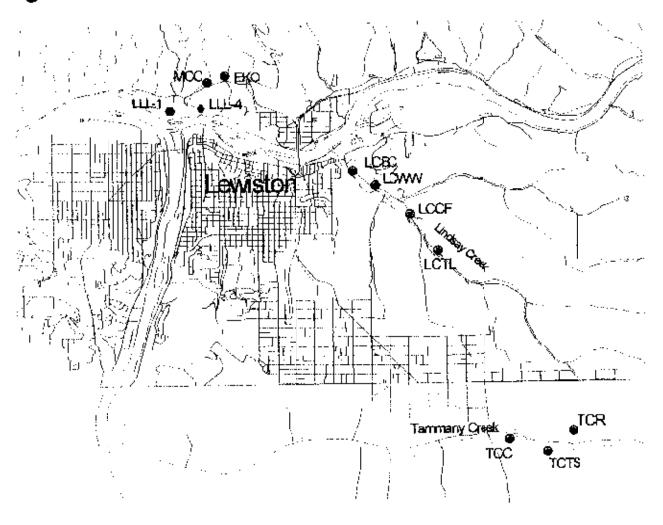
IDEQ sampled Tammany Creek in May, 1995. Several residential and business wells and the Tammany School were tested for nitrite/nitrate. The Tammany School well demonstrated the highest concentration (12.4 mg/l) found in the area. The residential and business wells in the area showed a range of 0.008 to 5.7 mg/l.

The Lapwai area wells have been the subject of previous sampling, although efforts to date aimed at obtaining this data have been unsuccessful. A 1995 City of Lapwai sample from the Lapwai School demonstrated a nitrite/nitrate concentration of 1.5 mg/l.

STUDY AREA

Sampling for this study took place at several locations in the Lewiston and Lapwai areas (see Figure 1 for the Lewiston locations and Figure 2 for the Lapwai sites). Sampling wells include

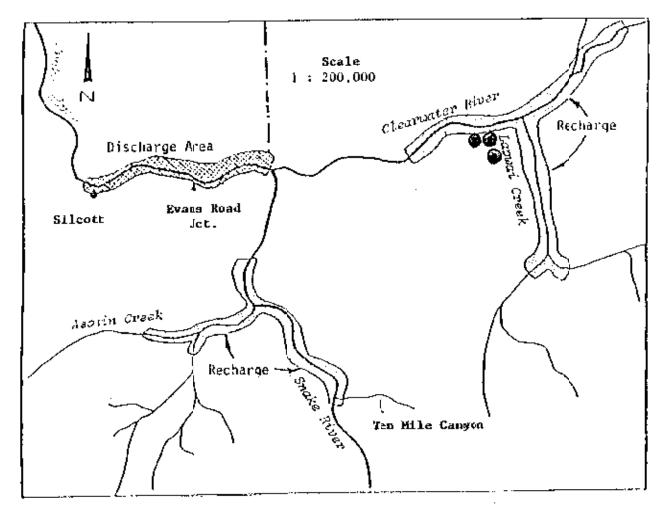
Figure 1. Groundwater Monitoring Locations



- Monitor Well
- Domestic Well
- Streets and Roads
 Surface Water



Figure 2. Lapwai Sampling Area. Location of Recharge and Discharge Areas of the Russell Aquifer in the Lewiston Basin.



Legend: Areas of River Acuifer Interconnection

Recharge Area Discharge Area Domestic Wells

the Lewiston Levee Landfill, the Twin City Foods land application site, Lindsay Creek, Tammany Creek, and the City of Lapwai. A brief description of these facilities and sites follows:

The Lewiston Levee Landfill is a silt/fine soil encapsulated 5.2 acre landfill built by the US Army Corps of Engineers during construction of the Lower Granite Dam. The site is located on the north shore of the Clearwater River near its confluence with the Snake River. Approximately 1,000,000 cubic yards of waste materials, including wastes generated by the Camas Prairie Railroad, Potlatch Corporation, landfill materials from other sites in Lewiston, and other unidentified wastes were buried at the site (Shannon and Wilson, 1992). Five monitoring wells, located around the perimeter of the landfill, were constructed and sampled during a September 1992 Lower Granite Dam drawdown. The samples demonstrated concentrations of some VOC's, metals, and pesticides, as well as nitrite/nitrate. Additionally, dioxins and furans were found at the site, but their presence was not confirmed in duplicate samples.

The Twin City Foods waste water land application site has been the subject of previous nitrite/nitrate, chloride, and other contaminant sampling (Ralston, 1995). Sampling at the site consisted of two nearby wells that are potentially affected by activities at the waste water land application site. The McCann well is a private stock watering well located approximately 0.5 mile to the southwest. The EKO well is located at the EKO Composting facility approximately 2 miles to the south.

The Lindsay Creek area has been the subject of past IDEQ research. In 1988, numerous Lindsay Creek wells and springs were sampled for nitrite/nitrate and other pollutants. Many of the wells, particularly shallow, private, drinking water wells, demonstrated elevated levels of nitrite/nitrate. For this study, several of the previously monitored private wells were chosen for follow-up sampling.

Tammany Creek area private and business wells (and one school well) were also the subject of IDEQ nitrite/nitrate research in 1995. Several wells from the 1995 study demonstrated high

levels of nitrite/nitrate (up to 12.4 ppm). For the study, several of the previously monitored wells were chosen for follow-up sampling.

Lapwai wells near the sewage lagoons have apparently been the subject of previous sampling by the Nez Perce Tribe. As of this time, efforts to obtain data from previous sampling from these particular wells have not been successful. However, previous 1995 sampling data from a well at the Lapwai School indicate a concentration of 1.5 mg/l. For this study, three wells in close proximity to the sewage lagoon were chosen by the Tribe for nitrite/nitrate sampling.

HYDROGEOLOGIC SETTING

There are three formations that contain aquifers within the Lewiston Basin: the Wanapum, the Saddle Mountains, and the Grande Ronde formations. The Wanapum and the Saddle Mountains formations provide the majority of moderate to shallow depth irrigation and domestic wells in the region through a series of poorly connected to isolated aquifers. It is believed that recharge in the Wanapum and Saddle Mountains formations occurs primarily from irrigation and precipitation. The Lewiston Orchards and Clarkston Heights areas are believed to be the sites of irrigation recharge. Discharge occurs as springs and seeps found on slopes below these communities and also from shallow, private domestic wells (Cohen and Ralston, 1980).

The underlying, older Grande Ronde formation is separated from the Wanapum/Saddle Mountains Formations by a continuous layer of weathered basalt or saphrolite layer of varying thickness. It appears to contain aquifers of much higher yield, recharge potential, and lateral continuity. Recharge to the aquifer is supplied by precipitation (limited by the low precipitation/high evapotranspiration found in the region) and stream flow. Stream flow recharge is believed to occur in the regions near the confluence of the Clearwater River and Lapwai Creek and near the confluence of the Snake River and Asotin Creek (see Figure 2). Discharge for the Grande Ronde formation occurs at the confluence of the Snake and Clearwater Rivers and continues several miles downstream. Table 1 depicts the approximate depths of the Wanapum/Saddle Mountains and Grande Ronde Formations.

Table 1. Approximate depths below surface of Russell Aquifer water bearing formations.

	Wanapum/Saddle Mountains Formations	Grande Ronde Formation
Approximate feet helow surface	0 to 200	200 to 800

The Russell aquifer is vulnerable to contamination via several mechanisms (CH2M Hill, 1988). The primary threat is from contaminated recharge waters from adjacent rivers and streams. Another potential mechanism may be from downward migration of contaminants through fractured and jointed basalt flows.

MATERIALS AND METHODS

Selection of Wells for Sampling

1. Lewiston Levee Landfill Wells

Selection of the Lewiston Levee Landfill was based on previous detections at the site and the need to maintain a close watch on potential pollutant migration from the landfill site. There are five monitoring wells in place at the site. Two of these were chosen for sampling based on their location relative to each other and to the landfill (well #4 was directly up gradient from the landfill, while well #1 was directly down gradient). Additionally, the two wells are the deepest at the site (both wells are 45 ft. deep), which was important due to the presence of a 15-20 ft. deep bentonite layer that surrounds the landfill. These two wells were chosen due to their ability to demonstrate natural, unimpeded water flow characteristics.

2. McCann and EKO Wells

Selection of the McCann and EKO wells was based on previous detections at the site and the need to monitor the effects of a nearby land application site. Previous samplings detected nitrite/nitrate and chloride in concentrations well above normal for the Lewiston area. These wells are in close proximity to the Twin City Foods waste water land application site and offer the best analysis of the ground water system and the local effects of the land application site.

3. Lindsay Creek Wells

The selection of Lindsay Creek for sampling was based on previous detections found in the area in 1988. Specific well selection was based on the concentrations detected, the depth of the well, and the co-operation of the homeowner. The Wolff residence well was the most shallow in the study (16 ft. deep) and offered a glimpse into shallow depth water quality conditions. The Law residence was chosen because of its depth (320 ft.) and proximity to the Wolff residence well (approximately 40 ft). The location of these two wells allowed for comparisons between the more shallow Wanapum Formation and the underlying Grand Ronde Formation. The other residence wells were all roughly 60 ft. deep and would provide an intermediate estimate of ground water conditions in the area.

4. Tammany Creek Wells

Selection of Tammany Creek for further monitoring was based on previous detections at the site. Well selection was based on the concentrations detected in previous studies and the co-operation of the homeowners. The Tammany Creek School was chosen because of high concentrations of nitrite/nitrate (12.4 mg/l) found in 1995. The Cromer and Rhynearson residences were chosen because these wells represented the low and middle concentrations (.008 mg/l and 4.2 mg/l, respectively) from the IDEQ's 1995 research. Depth to water in the well was also considered. All three wells chosen from the Tammany Creek area have a depth to water of 100 ft, or less.

5. Lapwai Wells

Selection of the Lapwai wells was based on proximity to Lapwai sewage lagoons and on the wishes of the Nez Perce Tribe. The wells that were sampled in this study were chosen by a Tribal representative.

Monitoring Parameters and Rationale

Table 2 depicts the number of samples to be taken, the number of QA samples to be taken, the sample matrix, and the container type. Additionally, the lab method number for each analysis appears in parentheses following the analytes.

Table 2. Sample location and number, QA/QC, analytes, and protocol. See Appendix 1 for the complete detailed analyte list.

Site	# of Samples	# of duplicate SAMPLES	Analyses	Sample Matrix	Container Type
Lewiston Landfill	2	1	VOCs (502.2)	Water	Glass Bottle (40 ml)
Levee	2	t	Metals (204.2)		Polyethylene (1 liter)
	2		Nitrite/ Nitrate (353.2)	:	Polyethylene (1 liter)
	2		Pesticides (525.2)		Amber Glass (1 liter)
Twin City Foods	2	1	Nitrite/ Nitrate	Water	Polyethylene (1 liter)
	1		Pesticides		Amber Glass (I liter)
	2		Chloride (325.3)		Polyethylene (50 mls)
Lindsay Creek	5	2	Nitrite/ Nitrate	Water	Polyethylene (1 liter)
	2		Pesticides		Amber Glass (1 liter)
Tammany Creek	3	1	Nitrite/ Nitrate	Water	Polyethylene (1 liter)
	1		Pesticides		Amber Glass (1 liter)
Lapwai	3	1	Nitrite/ Nitrate	Water	Polyethylene (1 liter)

The rationale for the choice of the analytes was based on the area's history. Nitrite/nitrate is a common pollutant in the area and has been the subject of substantial previous research. VOC's and metals were chosen based on past sampling detections at the Lewiston Levee Landfill. Chloride was based on previous detections in wells near the Twin City Foods land application site. Pesticides were included in the sampling based on a desire to assess overall agricultural impacts to the Russell Aquifer and to provide baseline pesticide data for the area.

Sample Preservation Methods and Holding Times

The following table depicts the sample type and its corresponding preservation method and holding time.

Table 3. Sample type, preservation methods, and holding times.

Sample Type	Preservation Methods	Holding Times
Nitrates	2 ml Sulfuric Acid per liter. Cool to 4 C	28 days (nitrite/nitrate combined)
Metals	1.5 ml Nitric Acid per liter. Cool to	6 months
Pesticides	80 mg Sodium Thiosulfate Cool to 4 C	14 days
Chloride	Cool to 4 C	28 days
VOCs	2-3 mg Sodium Thiosulfate Cool to 4 C	14 days

Frequency of Sample Collection

Sampling occurred only once per site.

RESULTS

This section reports on the results of the study by location and contaminant. A tabular depiction of the data from this study can be found in Appendix 2.

1. Lewiston Levee Landfill

Nitrite/Nitrate

Nitrite/nitrate concentrations found at the landfill site were both relatively low. Monitoring well #1 had a concentration below the detection limit of 0.005 mg/l. However, the concentration at monitoring well #4 (2.99 mg/l) is high enough to indicate the possibility of human influence. In the 1992 Army Corps of Engineers sampling, three of four samples at well #1 were non-detections for nitrite/nitrate. Well #4 demonstrated nitrite/nitrate concentrations of 1.1, 0.5, and non-detect in three 1992 samples.

Monitoring well #1 is located closer to the Clearwater River (approximately 25 ft from the river's edge) at the southeast corner of the facility. It is likely that the low nitrite/nitrate level at well #1 (<0.005 mg/l) was a result of bank recharge from the nearby river, thus masking any possible landfill leachate. Monitoring well #4, located at the northern-most point of the landfill, displayed a much higher nitrite/nitrate concentration (2.99 mg/l). Table 4 depicts the nitrite/nitrate values found in monitoring wells #1 and #4 in 1997 and 1992.

Table 4. 1997/1992 nitrite/nitrate concentrations at the Lewiston Levee Landfill site.

Site	1997 Nitrite/ Nitrate Concentration (mg/l)	1992 Nitrite/Nitrate Concentration Range (mg/l)
Lewiston Levee Well #1	<0.005	BDL to 0.033
Lewiston Levee Well #4	2.99	BDL to 1.1

Since ground water flow in this area is likely similar to flow at the nearby land application site/EKO facility interchange (where flow is directly to the south), it is plausible that the higher nitrite/nitrate concentration found at the monitoring well is a result of drainage from the cattle feedlot operation located directly north at the McCann site.

VOC's and Metals

For the study, only the Lewiston Levee Landfill site was tested for VOC's and metals. Both wells that were tested at the site (monitoring wells #1 and #4) showed contaminant levels below the instrument detection limits for all VOC's. A replicate sample from well #4 also tested below the detection limits. Monitoring wells #1 and #4 both tested below detection limits for all metals tested (antimony, arsenic, chromium, lead, and mercury). A replicate from well #1 also tested non-detect for all metals. In 1992, each well tested above detection limits on at least one occasion for one of more of the metals. However, the majority of the 1992 concentrations were below detection limits.

Pesticides

Both monitoring wells at the Levee site were tested for pesticides. Both wells tested below the instrument detection limits.

2. McCann and EKO Wells

Nitrite/Nitrate

Nitrite/nitrate concentrations found at the McCann and EKO wells were relatively high. The concentration at the McCann well was 9.25 mg/l. The concentration at the EKO well was 12.1 mg/l. The MCL for nitrite/nitrate is 10 mg/l. These concentrations are similar to those of previous ground water sampling in the area. Ralston's document showed a range of 10.0-13.0 mg/l and 9.9-20.1 mg/l for McCann and EKO, respectively. Table 5 depicts the 1997 nitrite/nitrate concentrations and the 1989-95 concentration range.

Table 5. 1997 and 1989-95 nitrite/nitrate concentrations at the McCann and EKO wells.

Site	1997 Nitrite/Nitrate Concentrations (mg/l)	1989-95 Nitrite/Nitrate Concentration Range (mg/l)
McCann Well	9.25	10.0 to 13.0
EKO Well	12.1	9.9 to 20.1

Ralston reports the depth of the EKO well as 240 ft. with a depth of water of 180 ft. This depth indicates that the EKO well draws primarily from the Wanapum Formation with potential for draw from the upper portion of the Grande Ronde Formation (Raiston, 1995). According to the well driller's log, the depth of the McCann well is approximately 750 ft. with a depth to water of roughly 500 ft. This depth suggests that the well penetrates into the Grande Ronde formation.

Chloride

For the study, only the McCann and EKO wells were tested for chloride. The McCann and EKO well concentrations were 76.8 mg/l and 806.2 mg/l, respectively. The chloride value in the EKO well was higher than the secondary standard of 250 mg/l. These values were consistent with the range of values found in previous studies (Ralston, 1995). The range for the McCann well was 7.0-104.0 mg/l and the EKO well ranged from 615-1190 mg/l. As noted by Ralston, the values indicate that the EKO well is being influenced by high chloride content waste water application at the Twin City Foods site, while the McCann well is apparently not being directly affected by autivities at the site. The mechanism for this influence could be one of many faults that occur in the area or the natural, down-gradient drainage of the ground water.

Table 6 depicts the chloride concentrations and the specific conductance (a measurement which reflects ion concentrations found in water) values found in this study and during previous work at the site (Ralston, 1995).

Table 6. 1997 and 1989-95 chloride concentrations and conductance values for the McCann and EKO wells.

1997 1989-95 1989-95 Chloride 1997 Chloride Site Conductance Conductance Range (mg/l) Concentration(mg/l Range (uS/m) (uS/m)McCann 951-1100 868 7-104 76.8 Well EKO 3179-3600 3,390 615-1150 806.2 Well

Study results are similar to the results from previous efforts. Chloride concentrations and specific conductance are extremely high at the EKO well, but much lower in the McCann well. This suggests that the flow of ground water from the land application site is directly to the south (the location of the EKO facility). The McCann well, located to the southwest, is spared the effects of the chloride. However, the high nitrite/nitrate concentrations found at both sites indicate that the land application site may not be the source of elevated nitrite/nitrate found in the area. Ralston suggests the possibility that the area's nitrite/nitrate background concentration may be high or that activities at the EKO composting facility may be responsible for adding nitrite/nitrate to the EKO well. Since this area is considered to be a discharge area, the elevated levels of nitrite/nitrate and chloride should not influence the rest of the aquifer or be a substantial concern to human health via drinking water. There are no domestic wells between the EKO facility and the discharge area of the Snake River/Clearwater River confluence.

Pesticides

The McCann well tested below the detection limit for pesticides. The EKO well was not tested for pesticides in this study.

3. Tammany Creek

Nitrite/Nitrate

Nitrite/nitrate concentrations at the Tammany Creek site ranged from 0.011 mg/l at the Cromer residence, 1.76 mg/l at the Rhynearson residence, and 17.5 mg/l at the Tammany School. The Cromer well demonstrated no real change over the last two years (the well had a concentration of 0.008 mg/l in 1995). The Rhynearson well showed a substantial decrease in nitrite/nitrate concentrations over the last two years. The 1995 nitrite/nitrate value was 4.2 mg/l versus 1.76 from this study. The Tammany School showed a substantial increase in nitrite/nitrate over the last 2 years, rising from 12.4 mg/l in 1995 to 17.5 in 1997. The North Central District Health Department was notified of the drinking water nitrate MCL of 10 mg/l at the Tammany School, and the school was contacted. The school was aware of the nitrite/nitrate problem and was using bottled drinking water.

The Tammany School well is 407 feet deep with a depth to water of 55 feet. Well depth information is not available for the Cromer and Rhynearson residences; however, depth to water was listed at 100 feet for each in the 1995 IDEQ study. The variation in concentrations at this site is difficult to assess. The wells are relatively close to each other and the depth to water is similar, yet the concentrations are very different. Previous data shows a similar trend. Different wellhead protection practices at each site or the age and condition of the well may offer an explanation. The well log for the Tammany School shows that the well was drilled to 600 ft. with water bearing zones at several depths along the well. The well was scaled and eased to 120 ft. It is likely that the high nitrite/nitrate concentrations found in this well are a result of contaminated water from shallower aquifer(s) entering the well. However, without well logs for the other sites and without further research into the problem, any explanation of the variation at this time is purely speculative. Table 7 depicts the 1997 nitrite/nitrate concentrations found in previous IDEQ sampling.

Table 7, 1997/1995 nitrite/nitrate concentrations at Tammany Creek.

Site	1997 Nitrite/Nitrate Concentrations (mg/l)	1995 Nitrite/Nitrate Concentrations (mg/l)
Tammany School	17.5	2.4
Cromer Residence	0,011	0.008
Rhynearson Residence	1.76	4.2

Pesticide

The Tammany School was the only well from the Tammany Creek area tested for pesticides. Concentrations for all pesticides at this location were below the instrument detection limits.

4. Lindsay Creek

Nitrite/Nitrate

The Lindsay Creek area nitrite/nitrate concentration ranged from 0.008 mg/l-18.3 mg/l during this study. The highest concentration (18.3 mg/l) was found in a shallow dug well at the Wolff residence. The low concentration (0.008 mg/l) occurred at the Law residence in a 320 ft, deep drilled well. The wells are adjacent to each other (approximately 40 ft. apart). The Laws well concentration dropped from 0.023 mg/l in 1988 to 0.008 mg/l in 1997, while the Wolff residence well rose dramatically over the same time frame from 5.32 mg/l in 1988 to 18.3 mg/l in 1997.

The Cowger residence nitrite/nitrate concentration also increased, rising from 6.99 mg/l in 1988 to 10.3 mg/l in 1997. The Breedon well rose slightly from 1.22 mg/l to 1.33 mg/l and the Fuchs well concentration dropped from 7.99 mg/l to 6.37 mg/l over the same time frame. The proximity to Lindsay Creek itself may explain the variation in these three wells. The Cowger residence is located along the creek (the Fuchs residence is also very close), while the Breedon residence sits approximately 150 ft from the creek. It is likely that the Cowger and Fuchs wells are more influenced by nitrite/nitrate concentrations from bank recharge from Lindsay Creek itself. Table 8 depicts the 1997 nitrite/nitrate concentrations, as well as the 1988 concentrations found in previous IDEQ research.

Table 8. 1997/1988 nitrite/nitrate concentrations at Lindsay Creek.

Site	1997 Nitrite/Nitrate Concentration (mg/l)	1988 Nitrite/Nitrate Concentration (mg/l)
Law Residence	0.008	0.023
Wolff Residence	18.3	5,32
Cowger Residence	10,3	6.99
Breedon Residence	1.33	1.22
Fuchs Residence	6.37	7.99

Pesticides

The Wolff and Law residences at Lindsay Creek were tested for pesticides. Both wells tested below the detection limit for all pesticides. The Law residence, a 320 ft. deep drilled well, would be expected to display concentrations below the detection limit. However, the Wolff well, a hand dug well only 16 ft. deep, would be the most likely of all the wells tested to display elevated concentrations of pesticides. The fact that this well tested non-detect for all pesticides suggests that, at least in the Lindsay Creek area, ground water contamination from pesticides is not an immediate concern.

5. Lapwai

Nitrite/Nitrate

Nitrite/nitrate concentrations found in the Caulkins, Allen, and Rickman residences demonstrated relatively low levels of the pollutant. The Caulkins residence well had a concentration of 0.97 mg/l, while the Allen and Rickman residence wells showed slightly higher values of 1.75 and 1.55 mg/l, respectively. Comparisons to past sampling from these wells is not possible as previous data for these wells has not yet become available. However, these values are consistent with City of Lapwai well samples taken from the Lapwai School in 1995 (the school well concentration was 1.5 mg/l).

CONCLUSIONS

The purpose of this study was to determine the concentrations of nitrite/nitrate, pesticides, VOC's, metals, and chloride is various wells in the Lewiston and Lapwai areas. Additionally, the persistence of the various compounds was to be determined in areas that were previously studied. The major conclusions of this study are as tollows:

1. Nitrite/nitrate contamination remains a problem in the Lindsay Creek and Tammany Creek areas. In some cases, the extent of the contamination has worsened over the last several years. As of this time, two residences in Lindsay Creek and the Tammany School displayed

concentrations above the MCL of 10 mg/l for nitrite/nitrate. Numerous other wells in these areas demonstrated nitrite/nitrate levels that suggest human influence.

- 2. Nitrite/nitrate concentrations remain high in the McCann and EKO wells. The high nitrite/nitrate concentrations may be a result of activities at the Twin City Foods land application site. However, because the concentrations of nitrite/nitrate are high in both wells, yet the McCann well does not show the same high chloride values that are found in the EKO well, it is possible that some other torce is involved. Background nitrite/nitrate concentrations in the area may be naturally high, activities at the EKO composting facility may be affecting the EKO well, or there could be an additional source(s) that have not yet been considered.
- 3. VOC, metal, pesticide and nitrite/nitrate contamination from the landfill at the Lewiston Levee does not appear to be a concern at the present time. However, well placement and depth (relative to the bentonite layer surrounding the landfill) compromises the ability to accurately assess the situation at the site. Additional monitoring wells, deeper than the bentonite layer, would provide a more complete description of potential pollutant migration at the site. Additionally, a well drilled directly into the landfill would clear up confusion regarding what materials and compounds are actually present in the landfill and what contaminants future research should aim to assess.
- 4. Presently, pesticide contamination of ground water in the Lewiston area does not appear to be a concern. None of the wells tested displayed a concentration of any pesticide above the detection limit. Given the slow movement of pesticides through soil, it is not surprising that the deeper wells were non-detects. However, the more shallow wells (including a 16 ft. deep well at Lindsay Creek) also tested below the detection limit. This data suggests that, at the present time, there is no problem regarding pesticide contamination of ground water in the Lewiston area.
- 5. The wells in the Lapwai area do not appear to be strongly affected by the nearby sewage lagoons. However, nitrite/nitrate concentrations above 1 mg/l are indicative of potential human

influence. Since previous information is not available for these wells, it is not possible to assess persistence. Because of their proximity to the sewage lagoons, these wells should continue to be closely monitored.

6. It appears that the upper portion of the Wanapum Formation of the Russell Aquifer is the most contaminated. Numerous shallower wells (<100 ft.) from the Lindsay Creek and Tammany Creek areas have demonstrated levels of nitrite/nitrate contamination that indicate obvious human influence. Some of the wells from these areas displayed concentrations well above the MCL of 10 mg/l. Nitrite/nitrate and chloride concentrations found in deeper wells near the Twin City Foods land application site suggest that the area from the lower Wanapum Formation to the upper Grande Ronde Formation also may have been contaminated near this site. However, this area is considered to be an aquifer discharge area, so the nitrite/nitrate levels do not appear to be a concern at this time.

No VOC, metal, or pesticide contamination to any part of the Russell aquifer was found in this study.

QUALITY ASSURANCE/QUALITY CONTROL

QA/QC consisted of trip blanks and replicates. Seven replicate samples were used (5 nitrate, 1 metal, and 1 VOC sample), as well as 1 trip blank used per site. The trip blanks were combined into a composite and tested for chloride. The composite sample concentration was below the chloride detection limit of 0.9 mg/l.

A metals replicate sample was taken at the Lewiston Levee Landfill. The original and replicate samples both had concentrations below the detection limit for all metals. VOC replicate samples were also taken at the Lewiston Levee Landfill site. The original and replicate samples both displayed concentrations below the detection limit.

Nitrite/nitrate replicates were taken at several sites. A replicate sample taken at the EKO site demonstrated identical concentrations to the original (12.1 mg/l each). The replicate taken at Tammany School showed a concentration of 17.3 mg/l versus 17.5 mg/l for the original sample. A replicate sample taken at the Wolff residence at Lindsay Creek gave a result of 18.4 mg/l versus 18.3 mg/l for the original. A replicate sample taken at the Caulkins residence in Lapwai showed an even lower variability: 0.97 mg/l in the original and 1.00 mg/l in the replicate. A replicate sample taken at the Law residence at Lindsay Creek showed the highest variability. The original sample displayed a concentration of 0.008 mg/l. The replicate concentration was below the detection limit of 0.005 mg/l.

Overall, the replicate and trip blank system worked to ensure the quality of the data. The sample and duplicate samples were compared using EPA's relative percent difference (RPD) formula (United States Environmental Protection Agency, 1994).

$$RPD = [S-D] \times 100 / (S-D)/2$$

Where:

S = The First Sample Value (the original sample).

D = The Second Sample Value (the duplicate sample).

EPA uses a 20% relative difference value to determine the precision and accuracy of the duplicate/original sample. The highest RPD in this study, found at the Caulkins residence in Lapwai, was 3.0 percent. The sample to duplicate RPD from the Law residence at Lindsay Creek was not ascertainable due to the replicate testing below the detection limit. The original sample tested at 0.008 mg/l.- just above the detection limit of 0.005 mg/l. While the RPD cannot be determined, the difference between the two values is not likely to be considered significant. According to the State Laboratory there is often more variability found in samples with concentrations at or near the detection limit.

Literature Cited

- 1. CH2M Hill. Petition for Sole Source Aquifer Designation. Public Utility District No. 1 of Asotin County. January, 1988. Unpublished.
- Cohen, P.L., and D. Raiston. Reconnaissance Study of the "Russell" Basalt Aquifer in the Lewiston Basin of Idaho and Washington. Idaho Water Resources Research Institute. March, 1980.
- Idaho Division of Environmental Quality. Tammany Creek Sampling Results, 1995.
 Unpublished.
- Idaho Division of Environmental Quality. Lindsay Creek Sampling Results, 1988.
 Unpublished.
- Ralston, D. Reconnaissance Hydrogeologic and Soils Analysis of the Wastewater Land Application Site for Twin City Foods, Inc., Lewiston, Idaho. October, 1995. Unpublished.
- Shannon and Wilson. Lewiston Levee Waste Area Monitoring Results Lewiston, Idaho. September, 1992. Unpublished.
- United States Environmental Protection Agency. Contract Laboratory Program National Functional Guidelines for Inorganic Data Review. EPA 540/R-94/013. February, 1994.

APPENDIX 1

<u>List of Analytes</u>

NITRITE/NITRATE (NO2- and NO3- and N)

CHLORIDE

METALS:

Antimony Arsenic Chromium Lead Mercury

VOC's:

Benzene Bromochloromethane Bromoform n-Butlybenzene tert-Butylbenzene Chlorobenzene Chloroform 2-Chlorotoluene Dibromochloromethane 1,3-Dibromoethane 1,2-Dichlorobenzene 1,4-Dichlorobenzene 1,1-Dichloroethane 1,1-Dichloroethene trans-1,2-Dichloroethene 1,3-Dichloropropane 1,1-Dichloropropene trans-1,3-Dichloropropene Hexachlorobutadiene p-Isopropyltaluene Napthalene Styrene 1,1,2,2-Tetrachloroethane Toluene 1,2,4-Trichlorobenzene 1,1,2-Trichloroethane Trichlorofluoromethane 1,2,4-Trimethylbenzene Vinyl Chloride

Bromobenzene Bromodichloromethane Bromomethane sec-Butylbensene Carbon tetrachloride Chloroethane Chloromethane 4-Chlorotoluene 1,2-Dibromo-3-chloropropane Dibromomethane 1.3-Dichlorobenzene Dichlorodifluoromethane 1,2-Dichloroethane cis-1,2-Dichloroethene 1,2-Dichloropropane 2,2-Dichloropropane cis-1,3-Dichloropropene Ethylbenzene Isopropylbenzene Methylene Chloride n-Propylbenzene 1,1,1,2-Tetrachloroethane Tetrachloroethene 1,2,3-Trichlorobenzene 1,1,1-Trichloroethane Trichloroethene 1,2,3-Trichloropropane 1,3,5-Trimethylbenzene Xylenes (total)

PESTICIDES

• • • • • • • • • • • • • • • • • • • •	
Acenaphthene	Acenapthylene
Alachlor	Aldrin
Ametryn	Anthracene
Atraton	Atrazine
Benz(a)anthracene	Benzo(b)fluoranthene
Benzo(k) fluoranthena	Benzo(g,h,i)perylene
Benzo(a) pyrene	Bromacil
Butachlor	Butylate
Butylbenzyl phthalate	Carboxin
a-Chlordane	g-Chlordane
t-Nonachlor	Chlorneb
Chlorobenzilate	2-Chlorobiphenyl
	Clorpyrifos (Duragard)
Chloropropham Chlorthalonil	Chrysene
	Cycloate
Cyanazine	4,4'-DDD
DCPA	4,4'-DDT
4,4'-DDE	Dibenz(a,h)anthracene
Diazinon	2,3-Dichlorobiphenol
di-n-Butyl phthalate	Dieldrin
Dichlorvos	bis(2-ethylhexyl) phthalate
bis(2-ethylhexyl)adipate	Dimethyl phthalate
Diethyl phthalate	2,6-Dinitrotoluone
Z,4-Dinitrotoluene	Disulfoton
Diphenamid	Disulfonton sulfoxide
Disulfoton sulfone	Endosulfan II
Endonsulfan I	
Endosulfan sulfate	Endrin
Endrin aldehyde	EPTC
Piperalin (Pipron)	Dienochlor (Pentac)
Bromoxynil	Acephate (Orthene)
Ethoprop	Etridiazole
Fenamiphos	Fenarimol
Fluorane	Fluoridone
a-BHC	b-BHC
d-BHC	g-BHC (Lindane)
Heptachlor	Heptachlor epoxide
2,2',3,3',4,4',6-Heptachlorobiphenyl	Hexachlorobenzene
2,2',4,4',5,6'-Hexachlorobiphenyl	Hexachlorocyclopentadiene
Hexazinone	Indeno(1,2,3-c,d)pyrene
Isophorone	Methoxychlor
Methyl paraoxon	Metolachlor
Metribuzin	Mevinphos
MGK 264-isomer a	MGK 264-isomer b
Molinate	Mapropamide
Norflurazon	Pebulate
2,2'3,3',4,5',6,6'-Octachlorobiphenyl	Pentachlorophenol
2,2',3',4,6-Pentachlorobipphenyl	cis-Permathrin
trans-Permathin	Phenanthrene
Prometon	Prometryn
Pronamide	Propachlor
Propazine	Pyrene
trobastue	-

Simazine
Stirofos
Terbacil
Terbutryn
2,2',4,4'-Tetrachlorobiphenyl
Tricyclazole
Vernolato
Rotenone (Pyrellin)
Fenarimol (Rubagin)

Simetryn
Tebuthiuron
Terbufos
Triademefon
2,4,5-Trichlorobiphenyl
Trifluralin
Pyrethrins (Pyrellin)
Metalaxyl (Subdue)

APPENDIX 2

<u>Results</u>

Sample # Nitrite/ Chloride Pe		Pesticides	Metals	VOC's						
	Nitrate (mg/l)	(mg/l)	(mg/l)	(mg/1)	(mg/l)					
MCC-1-1	9.25	nt	nt nt nt							
MCC-1-2	nt	76.8	nt	nt	nt					
EKO-1-1	12.1	nt	nt	nt	nt					
EKO-1-1R	12.1	nt	nt	nt	nt					
EKO-1-2	nt	806.2	nt	πt	nt					
LLL-1-1	nt	nt	nt	BDL	nt					
LLL-1-1R	nt	nt	nt	BDL	nt					
LLL-1-2	<0.005	nt	nt	nt	nt					
LLL-1-3	nt	nt	BDL	nt	nt					
LLL-1-4	nt	nt	nt	nt	BL					
LLL-4-1	2.99	nt	nt	nt	nt					
LLL-4-2	πt	лt	nt	BDL.	nt					
LLL-4-3	nt	nt	nt	nt	BDL					
LLL-4-3R	nt	ηt	nt	nt	BDL					
T.T.T.=4-4	nt.	nt	BDL	! nt	nt					
TCR-1-1	1.76	nt	nt	nt	nt					
TCTS-1-1	17.50	nt	nt	nt	nt					
TCTS-1-1R	17.30	nt	nt	nt	nt					
TCC-1-1	0.011	nt	nt	nt	пt					
LCBC-1-1	10.30	nt	nt	nt	nt					
LCWW-1-1	18.30	nt	nt	nt	nt					
LCWW-1-1R	18.40	nt	nt	nt	nt_					
LCCF-1-1	6.37	nt	nt	nt	nt					
LCGB-1-1	1.33	nt	nt	nt	nt					
LCTL-1-1	0.008	nt	nt	nt	nt					
LCTL-1-1R	<0.005	nt	лt	nt	nt					

BDL: Below Instrument Detection Limit ns: Sample Not Tested for Contaminant

烿
Ě
Ö

Name MERTO C Address III ? IF IF	_		Lal	b Cha	arge 0	9 00e		- <u>-</u> -				•	4	上少		State Divi Env	sic	n C)f	al Q	ualit		
City Leave Trace		State Zip Code,	- 																				
Sampler(s)			= <u> </u>	TY SA	PE O	F >> E >>	1,000	44	. " : 4 ² 5.	: . :	:	 8 % 1.	Ť	E9T	3				4.				<u>, </u>
Project or Site	;' .	11 1 1	_				1		311)	(1311)	£					(0000)		(S)	-				Š
Chain of Cus	tod	ly Form				Other	418.1 (L.R.) TPH	8015 (G.C.) TPH	TCLP - Metals (1311)	TCLP - Volatiles (1311)	TCLP - Pest. (1311)	Total Metals	ooint		PAH's (8270)	Organochloridea (8080)	Herbicides (8150)	Organophosphates (8140)		. ,			Number of Corranges
LAN HOMBER TO DATE	TME	SAMPLE IDENTIF	IC, ION	Water	Soil		418.1	8015	ខ្ពុំ	15	10 10 10	Total C	Flash	Ŧ	PAH's	0	Į.)	\			2 ×
2/1/1	1300	L (U - 1 - 1								_				<u> </u>			! →		<u> </u>	Į,		_	\perp
3/19	j ,	(A) - 1 - 1				1						_]	\downarrow	L			-	_		Ĺ			<u> </u>
2 214	/ } co	1 1 1 1 2 E		Ľ							Ш			L.			\downarrow		1	<u> </u>		ļ	<u> </u>
97-75	3 60	11000	;	TŸ														\perp	٧	1			
97-72	7 100	LIC - 150	1	1.	T . r	T			7		: 								i				: :
97-77	1 1 G	(Chronyles	₹	- -					-1]] ,	4			1.5
97-7-8 2/10/1	7 1 2 15	I CTL Se	2	١,						T					 -				١	1			302
	12.50	74780		7		\top			<u> </u>	<u>†</u>				1		T		T	Ţ	T	V		
				(1.) (2.32)			10-85			GA R	(1) (1+3)	12 N	ut.	OUS EMPLO	in ,	100	- -0-1	esser (gen Skark			v d
* motals it be terris): ,	And may		:,			,	<i>-</i>		.· .			1	,	. 1			!		,	٠,		
Andrio Fee Chiler						1									–								
140	- C										•										-		
																		.···					
Relinquished By (Signature)	7	Date Time Rece	ive By (Signa	nlure)	l o	\overline{M}			,	Pa [}	le).	, Tir	ne	, He	relve	ed v	rkh S	seal I	nlad	?/ } {	'Yos	ð N
Carillia .		12/5 0 15 50		1-		1 1	ne.	wic) 1/1/2	<i>j</i> q-	.,.	(37)	La	bel T	ag.	coc	Agr	e e 7	৾য়	Yes	п 1
· were		7 1 1 1 1 1			-	(,- O			-		1/"	<u>ب</u>											- · · · - · - ·

ш	
α	
×	
μ.	
4	
O	

Name ADC MUTTER LAR - ilea						l.	9 da.	narg D	e Co	id .						1	ŕ			Div	vis	ior	iaho 1 Of				
Address																	,				En	vir	on	me.	ntal	Qu	ali
City Lewista			State .}	Zip Code ⊘) ; o f		<u></u>													•			•	<u>,</u>				
Sampler(s)	··					TY S#	PE.	OF LE		: ::	13.9		٠.:	 & 	i	Ţ	est.	3	ing.			1	·		·. ·		· .
Project or Site	, . k	(not)										Ì≘	31						3		€ 8						Š
Chain of (-		orm	•				BTEX (8020)	418.1 (LR.) TPH	VOC's - 502.2/8021	TCLP - Metals (1311)	TCLP - Volatiles (1311)	TCLP - Pest, (1311)	Total Metals	Cyamues (555.2)		PAH's (8270)	Organochiondes (evev)	Herbicides (8150)	Organophoschates (8140)	1	,				ен от Сомтин
LAN NUMBER	DATE	TIME	SA	MPLE IDENTIFIC	10N	Weter	Soil	Other	E E	418.1	γος Sol	Į P	IT I	TCLP	Total	Flashooint	Ŧ	PAH's	Organ	Herbi	O G		. i				Number об
<u> </u>		7:10	ŢĊ	. P } -		V																J			<u> </u>		`
	2/10	10.00		75-1-7																		√					<u>.</u>
	2/10	1-1-5-6	Ťŧ	12-1	R	7					T.							:			' i	1				 	
97-80	5/10	1000	7	T5 1-	2	V					i									L.			1		╧		<u></u>
	∩ } _{fo}	10.70		((-)-		7]													٠.		J			\perp		<u></u>
-	75	HA.	ો રે	er Burk	1	V										_	! ∔		Ą.	Ŋ		_		`	\perp	<u> </u>	Ŀ
<u></u>						<u> </u> .					\perp							<u> </u>]	\perp	\downarrow	L	Ŀ
																				L	أا				<u> </u>	<u> </u> 	··
CONNENTS	PA	大学的	844 (·		: 3	٠,				्र.	7 (* 1) 1 (* 1) 2 (* 1)	17								3					:	٠	25
Relinquished By (Signature)		Da	ge /	Jime Receive	By 45	igna	ļµre	1		-			4	Da 2/	e	Tir	ne			ond :	with	Coo	Llet	- 10	hr v	es :	_

Name A)(MELTO-		<i>O</i> - () f ()	· · ·				La	ab Cr	narge ≧,2,	Cod (4)	<u>.</u>										State Divi	sic	on C)f	ما المالية
City Lewis tow			Siale	Zlo	Code															1845		5. 11			÷н	al Quality
Sampler(s)	·		· •		<u>-</u>		23						\$ 2				1	ari			i	*	i.		AV.	1
Project or Site Nic (n~ 4	E V.	ما د	(r 11 °										€	(E)						<u>(</u>		(9140)				E
Chain of	Cus	tod	y F		_				!	BTEX (8020)	0.0	VOC's - 502,2/8021	TCLP - Metats (1311)	TCLP - Volatiles (1311)	TCLP - Pest. (1911) Total Metals	Cyanides (335.2)	Flashpoint		PAH's (8270)	Organochlorides (8080)	Herbiciaes (B. 30)	Organophosphates	`		!	Numera of Contrast
Property of the San	DATE	TME	ВА	MPLE I	XENTIFICAT	ION	Waler	Soll	Other	BTEX	8015	Ş		힐	10LP	S S	Flash	됩	PAH	ő		<u>o</u>	<u> </u>	5 1 2		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	2/6/11		'				$ \vee $		ĺ							_	 -			1		١	f 	, Ì.	<u> </u>	
97 SM	2/687	2000	ي در ا	· (-	1-2							İ					L.				_[.		V	_		
97-76	0/6/19	7 602	~~\	c (-	/ - 3 ["]		1				•			_	╧	Ĺ						_	_	1	<u> </u>	1.0
	2 6/11	7 36	1) 1	· (! - 1		4			. [.	1		Ш	
<u> </u>	2/6/10/	1,130		· · · ·	1 1 1 12		V			T					- <u> </u>		Ţ_			-			4			1
	2/14/9	27.30	1 4	, - I	<u> </u>		1		П	†		T		··-							1		,	1	 	
	3 151	1 30	10	9 3	I ₊ γ, /		†—				-					T				·		.				(4)
-	1	<u> </u>	 				1		Ħ	\top	_	"			十	\top	1	"		İ	7			·· ·†=		
THE RESERVE OF THE PARTY OF THE				* 1975			ر از ان میرا	32	13.20			800 (i)		187			4	6		10		/4 a.		ŠΫ		
N T to SI	ansassa.	(1) (1)	1.201/1947 	<u> 297203</u> 5 A		<u>91.5 81</u> \		70 40 7	s eyc	×:*; !		-2012	4	224	- ipc.:	. 20 Jo.	<u> </u>				120.	-, -,		121.	<u></u> .	·
400 6014-316	الكالمت مستمالين	<u> </u>	ryc);	بدلكك	<u></u>											<u> </u>							Pi	ËÇ	ĒΝ	/ED
			•													_										1997
		_ 								-															Wist Log	
Relinquished By (Signature)			ate /	Tine	Received	gy(S	igna!	ture)	١),	T	-				Date	2	Tic	10	He	celve	ed v					Yes My N
La Bartell		2/0	\neg	8:45	المسلول المحاصر	2i2	IJ.	<i>κ</i> /),	ل. <i>ک</i> معمد	٠	hO4	90	N. I.	<u>-</u> -†	ीना	7 /		G).		bel T						/ Yes 11 N:

Name (MAI) to mechanic Like 164	State of Idaho Division Of Environmental Quali
City State Zip Code	TYPE OF SAMPLE
Project or Site () () () () () () () () () (
Chain of Custody Form LAB NUMBER SAMPLE IDENTIFICATION	Water Soit Other 9TEX (8020) 419 1 (IR) TPH 8015 (G.C.) TPH VOC's - 502,29021 TCLP - Walaties (1311) TCLP - Walaties (1311) TCLP - Pest. (1311)
2/10 2 30 LLL - 4 - 1 2/10 2 30 LLL - 4 - 2	
97-73 71 10 12 LLL - Y - 3 R 97-74 10 12 LLL - Y - 3 R 97-79 21 21 2 LLL - Y - Y	
97-79 7000 666 4-7	
METAL TO BE THOUGHT ALL ALL	
Reliaquished By (Signature) Date Time Received By (1 10 30 14 10	Signature) Cate Time Received with Seal Intact? 7 Yes (9.1) Catholic Time Received with Seal Intact? 7 Yes (9.1) Catholic Time Received with Seal Intact? 7 Yes (9.1) Catholic Time Received with Seal Intact? 7 Yes (9.1)

GEOLOGIC LOG Ground Elevation: 749.94 Feet	Depih, Ft.	Water Level	Blows/F1.	Soll Sample	РІО, ррт	AS-BUILT Flush Moun Steel Monument	-
Medium to dark brown, fine to medium SAND and medium to coarse GRAVEL; dry to damp - Grades to brownish grey, gravelly, fine to coarse SAND at 9 feet - Boulder at 12 to 13.5 feet Dark brownish gray, slightly sitty, fine to medium SAND and fine to coarse GRAVEL; dry to damp Dark gray, fine to medium SAND and SILT; trace fine to medium GRAVEL; moist Medium dense to dense, dark gray, slightly silty, fine to medium SAND; poorly graded; trace wood fragments; wet - Grades to some gravel at 35 feet BOTTOM OF BORING AT 45.0 FEET	25_	2-4-92 ⋈	56/11: 50/4* 65		0	724.0 / 25.9 723.9 / 26.9 718.0 / 31.9 Concrete Bentonite Grout 2 1D Seh 40 PVC No. 10 to 2 Colorado Sand Back Bentonite Seai No. 10 to 2 Colorado Jand Dace No. 20 Sid PVC Screte Threaded PVC Cap	fill
						NOTES	

Orilled By: Environmental West Exploration Orilling Method: Air Rotary Mobile B-80

PSI=120-150 During Drilling

Drilling Date: 1-31-92 Logged by: E. Geiger

Quantity	Backfill	Materia	s:

Groot,

Sand 3,5 Bags
Bentonite 1 Bag

4 Rage

Development:

Method Brainard-Kilman Pump

Date 2-2-92

Quantity Water Removed 205 Gal.

LEGEND

2° O.D. Split Spoon Sample

<u>NOTES</u>

- Drill cuttings logged continuously from 0 to 10 feet, at 5-foot intervals to 32.5 feet.
- The contacts represent the approx, boundaries between soil types and the actual transitions may be gradual.
- 3. Elevations shown are preliminary.

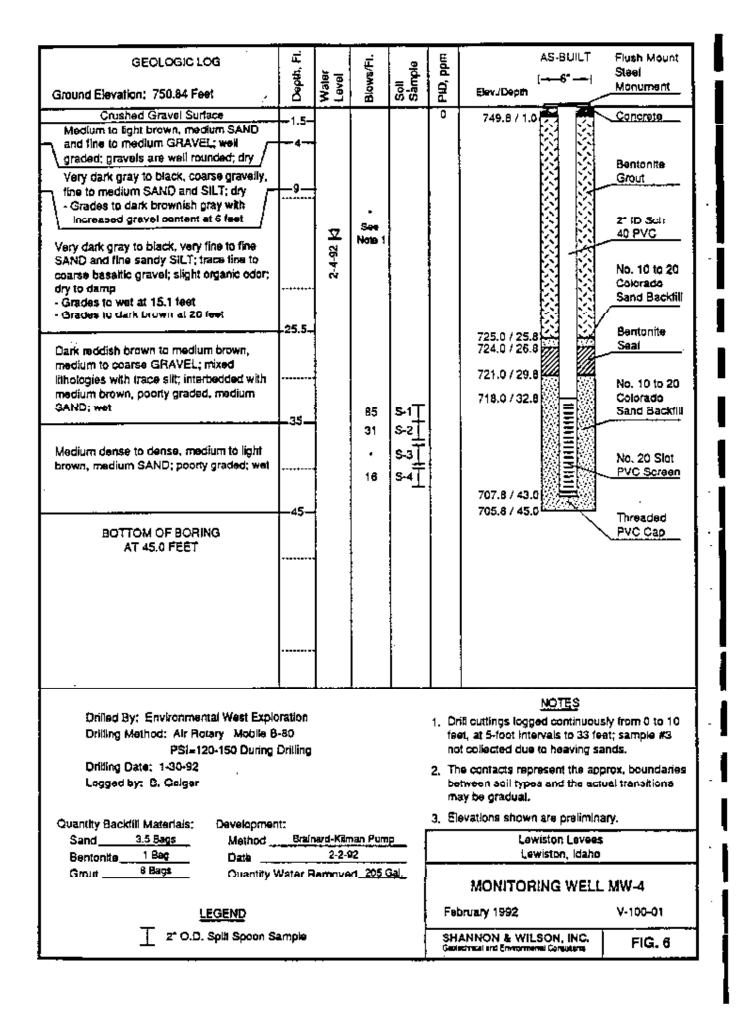
Lewiston Levees
Lewiston, Idaho

MONITORING WELL MW-1

February 1992 V-100-01

SHANNON & WILSON, INC.
Geometrical and Environmental Consustant

FIG. 3



State of Idaho, Department of Health and Welfare Bureau of Laboratories - Boise Laboratory 2220 Old Penitentiary Road, Boise, Idaho 83712 WATER QUALITY REPORT - CHEMICAL REPORT

LAB: BOISE, Phone: (208) 334-2235

Section Manager, Inorganic Chemistry: Jim Dodds

IDEQ - LEWISTON
WADE MELTON
1118 F STREET
LEWISTON, ID 83501

Tracking Number: 40297-0115/

(Please Refer to this Tracking Number on any communications)

Grant/Project: 8297

NCIRO-Lewiston - RESERVED - NCIRO

Survey Name: LEWISTON LANDFILL WELL #4

Well - W

Storet: NPDES No.:

Sample Location: LLL-4-2
Collected by: WADE MELTON
Those: Other

Composite: No Preservation: HNO3

Date Collected: 02/10/97 Date Received in Lab: 02/12/97

Time Collected: 14:30

STORET	TEST PERFORMED	RESULTS	COMPLETED	ANST
01097 01002 01034 01051	Antimony Arsenic, Total Chromium, Total Lead, Total Mercury, Total	<pre><5 (ug/1) <10 (ug/1) <2 (ug/1) <5 (ug/1) <0.5 (ug/1)</pre>	02/25/97 02/24/97 02/26/97 02/26/97 02/26/97	BP BP BP BP

LAB: BOISE, Phone: (208) 334-2235

Section Manager, Inorganic Chemistry: Jim Dodds

IDEQ - LEWISTON WADE MELTON 1118 F STREET LEWISTON, ID 83501

Tracking Number: 40297-0117/

(Please Refer to this Tracking Number on any communications)

Grant/Project: 8297

NCIRO-Lewiston - RESERVED - NCIRO Survey Name: LEWISTON LANDFILL WELL #1

Storet: NPDES No.:

Sample Location: LLL-1-1R
Collected by: WADE MELTON
Typese: Other
ten From: Well - W
Type of Sample:

Composite: No Preservation: HNO3

Date Collected: 02/07/97 Date Received in Lab: 02/12/97

TORET	TEST PERFORMED	RESULTS COMPLETED	anst
01002 1034 1051	Antimony Arsenic, Total Chromium, Total Lead, Total Mercury, Total	<pre> <5 (ug/1)</pre>	BP BP BP BP

LAB: BOISE, Phone: (208) 334-2235

Section Manager, Inorganic Chemistry: Jim Dodds

2.28.91

IDEQ - LEWISTON
WADE MELTON
1118 F STREET
LEWISTON, ID 83501

Tracking Number: 40297-0116/

(Please Refer to this Tracking Number on any communications)

Grant/Project:

8297

NCIRO-Lewiston - RESERVED - NCIRO

Survey Name:

LEWISTON LANDFILL WELL #1

Storet:

NPDES No.: Sample Location:

LLL-1-1

Collected by:

WADE MELTON

rpose: ken From: Other Well - W

Type of Sample:

Composite:

No

Preservation:

HNO3

Date Collected: 02/07/97

Date Received in Lab: 02/12/97

STORET	TEST PERFORMED	RESULTS	COMPLETED	ANST
01002 01034 01051	Antimony Arsenic, Total Chromium, Total Lead, Total Mercury, Total	<5 (ug/l) <10 (ug/l) <2 (ug/l) <5 (ug/l) <0.5 (ug/l)	02/25/97 02/24/97 02/26/97 02/26/97 02/26/97	BP BP BP BP



BUREAU OF LABORATORIES

2220 Old Penilentiary Rd. Boise, Idaho 83712 {208} 334-2235

UNDA L. CABALLERO

RICHARD H. SCHULTZ

PHILIP E. BATT

ORGANIC CHEMISTRY REPORT VOLATILE ORGANIC COMPOUNDS - METHOD 8021

Log No.: 97-72 Sample: WATER Analyst: W. BAKER

Date Analyzodi 3/9/97 Date Reported: 3/10/97

ANALYTE		SULTS (ug/l)*	3	ANALYTE		ESULTS (ug/l) *	S
Benzene	(-	U)	1,2-Dichloropropana	{	Ü)
Bromabenzene	ţ	u)	1,3-Dichloropropane	(Ų	1
Sromochloromethane	(U)	2,2-Dichloropropane	(U)
Bromodichloromethane	{	U	}	1,1-Dighloropropene	{	U	}
Bromoform	l	U	}	cis-1,3-Dichloropropene	į	U)
Bromomethane	(U)	trans-1,3-Dichloropropene	(IJ)
n-Butylbenzene	(U	ì	Ethylbenzene	{	U	}
to-Butylbenzene	{	u)	Hexachlorobutadiene	ţ	Ų)
.art-Butylbenzene	(Ü)	(sopropyibenzene	(Ų)
Carbon tetrachloride	(U)	p-isopropyltoluene	(U)
Chiorobenzene	(U)	Methylens chloride	- (U	}
Chloroethane	ŧ	U	3	Naphthaiene	ſ	U)
Chleroform	(U	1	n-Propylbenzene	(Ų.)
Chloremethane	(Ų	}	Styrene	(Ų)
2-Chiorotoluene	(U)	1,1,1,2-Tetrachioroethana	(U)
4-Chiorotoiuene	(u)	1,1,2,2-Tetrachloroethane	(ប)
Dibromochloromethane	(¥.	}	Tetrachloroothene	(Ų	ì
1,2-Dibromo-3-chloropropane	{	U)	Toluene	(U)
1,2-Dibromoethane	ţ	Ų)	1,2,3-Trichlorobenzene	{	Ü	}
Dibromomethane	t	U)	1,2,4-Trichlorobenzene	ŧ	Ų)
1,2-Dichlorobenzene	(u)	1,1,1-Trichlorethane	(U)
1,3-Dichlorobenzene	(Ų)	1,1,2-frichtoroethane	•	U	7
1,4-Dichlorobanzene	(U)	Trichlorgethene	(ų)
Dichlorodifluoromethane	(IJ)	Trichloroflucromethane	(U)
1,1-Dichicroethane	(u)	1,2,3-Trichtoropropans	ţ	U	1
1,2-Dichloroethane	(U)	1,2,4-Trimethylbenzene	(U)
1,1-Dichloroethene	(u	}	1,3,5-Trimethyibenzene	(U)
:is-1,2-Dichloroethene	(IJ	}	Vinyl chloride	(U)
trans-1,2-Dichloroethene	(U)	Xylenes (total)	(U	1

All analytical results less than the Minimum Reportable Limit (MRL) will be reported as U. The MRL is highly matrixdependent and can range from approximately 0.5-10 ug/l or nights.

Printed no.



BUREAU OF LABORATORIES

2220 Old Perutentiary Rd. Boise, Ideho 83712 (208) 334-2235

UNDA L CABALLERO RICHARD H. SCHULTZ

ORGANIC CHEMISTRY REPORT **VOLATILE ORGANIC COMPOUNDS - METHOD 8021**

Sample: WATER Analyst: W. BAKER Lag No.: <u>97-73</u>

Date Analyzed: 3/9/97 Date Reported: 3/10/97

ANALYTE		ESULT {va/l}*		ANALYTE		ESULT	_
Benzene	٠,	Ü)	1,2-Dichloropropene	(Ū)
Bromobenzene	{	U	}	1,3-Dichloropropane	(บ	}
Bromochloromethane	(IJ	}	2,2-Dichloropropane	(U)
Bromodichloromethane	(IJ)	1,1-Dichlorapropene	l	U	}
Bromoform	(Ų)	cis-1,3-Dichloropropene	(U)
Bromomethane	(U	}	trans-1,3-Dichloropropene	(ป)
n-Butylbenzene	(U)	Ethylbenzene	(IJ)
ac-Butylbenzene	(u)	Hexachlorobutadiene	(U)
.art-Butylbenzene	ţ	U)	lsopropylbenzene	t	U	1
Carbon tetrachloride	t	IJ	1	p-tsopropyltoluene	(U)
Chlorobenzene	(U	}	Methylene chloride	(U)
Chloroethane	(ŧJ	1	Nachthalane	ί	U)
Chleroform	(U)	n-Propylbenzene	(u)
Chloromethane	(U)	Styrene	(U)
2-Chlorotoluene	(Ų	ì	1,1,1,2-Tetrachloroethane	(u)
4-Chlorotoluene	ſ	U)	1,1,2.2-Tetrachloroethane	(U)
Dibromochloromethene :	ţ	U)	Totrachloroothone	(U	ì
1,2-Dibromo-3-chloropropane	(U)	Toluene	(U	1
1,2-Dibromoethane	(IJ	}	1,2,3-Trichlorobenzene	(U	}
Dibromomethana		ម)	1,2,4-Trichlorobenzene	{	Ü)
1.2-Dichiorobenzene	(Ų)	1,1,1-Trichlorethane	(Ü)
1,3-Dichlorobenzene	(Ų	1	1,1,2-Trichlorosthane	(U	ì
1,4-Dichlorobenzene	t	Ų)	Trichioroethene	(บ)
Dichlorodifluoromethane	(U)	Trichlorofluoromethans	(Ü)
1,1-Dichloroethane	(U)	1,2,3-Trichloropropane	(U)
1.2-Dichloroethane	(ŭ	}	1,2,4-Trimethylbenzene	t	u)
1,1-Dichloroethene	{	Ü)	1,3,5-Trimethylbenzene	(U	1
:is-1,2-Dichloroathane	ţ	U)	Vinyl chloride	(Ų	1
trans-1,2-Dichloroethene	(U)	Xylenes (total)	(U	1

All analytical results less than the Minimum Reportable Limit (MRL) will be reported as U. The MRL is highly matrixdependent and can range from approximately 0.5-10 ug/l or higher-



BUREAU OF LABORATORIES

2220 Old Penitentiary Rd. Boise, idaho 83712 (208) 334-2235

LINDA L. CARALLERO RICHARD H. SCHULTZ

ORGANIC CHEMISTRY REPORT VOLATILE ORGANIC COMPOUNDS - METHOD 8021

Sample: WATER Analyst: W. BAKER Log No.: 97-74

Date Analyzed: 3/9/97 Date Reported: 0/10/97

ANALYTE		SULTS (vg/l)*	3	ANALYTE		SULTS	3
Benzene	(Ш	}	1,2-Dichloropropane	(-	Ū)
Bromobenzene	ì	Ŭ	ì	1,3-Dichloropropane	(U)
Bromochloromethane	į	ŭ	í	2,2-Dichloropropane	{	υ)
Bromodichloromethene	(и	}	1,1-Dichloropropene	(Ų)
Bromoform	· (υ	ì	cis-1,3-Dichloropropene	ţ	u	}
Bromomethane	ì	Ū	í	trans-1,3-Dichloropropene	{	U)
n-Butylbenzene	,	Ū	ì	Ethylbonzene	(U)
oc-Butylbenzane	ì	Ū)	Hexachlorobutadiene	(u	}
tert-Butylbenzene	ì	ū	ì	Isopropylbenzene	{	Ü)
Carbon tetrachloride	ì	Ū	}	p-isopropyitoluane	(υ)
Chlorobenzene	ì	ŭ	ì	Methylene chloride	(U	}
Chidroethane	ì	ŭ	,	Naphthaleno	(U)
Chloroform	i	ū)	n-Propylbenzane	(U	1
Chioromethane	ì	Ŭ	ì	Styrene	(ប	}
2-Chlorotoluene	ì	Ŭ	ì	1,1,1,2-Tetrachioroethane	(U	}
4-Chlorotoluene	ì	Ū	í	1.1.2.2-Tetrachioroethane	(U)
Dibromochloromethane	ì	ŭ	ì	Tetrachicroethene	(u)
1.2-Dibromo-3-chloropropane	ì	Ū	,	Toluene	(u)
1.2-Dibromoethane	ì	Ü	ń	1,2,3-Trichlorobenzene	(υ	}
Oibromomethane	ì	Ū	í	1,2,4-Trichlorobenzene	(υ)
1,2-Dichlorobenzene	ì	Ū	,	1,1,1-Trichlorethane	(Ų)
1,3-Dichlarobenzene	ì	Ü	í	1,1,2-Trichloroethane	į	Ü)
1,4-Dichlorobenzene	ì	Ū	ì	Trichlorgethene	(U)
Dichlorodifluoromethane	'n	Ū	· i	Trichigrofluoromethane	{	u)
1,1-Dichloroethane	í	ŭ	ì	1,2,3-Trichloropropana	ť	U)
1,1-Dichloroethane	,	Ü	΄.	1,2,4-Trimethylbenzene	j	ū	j
1,1-Dichloroethene	1	Ü	1	1,3,5-Trimethylbenzene	ì	ū	ì
is-1,2-Dichloroethene	,	Ü	, 1	Vinyl chloride	(ŭ)
,		U	,	Xylenes (total)	ί.	Ū)
trans-1,2-Dichloroethene	ι,	Ų	•	Whitenay tracent	'	•	•

All analytical results less than the Minimum Reportable Limit (MRL) will be reported as U. The MRL is highly matrixdependent and can range from approximately 0.5-10 ug/l or higher.

17

STATE OF IDAHO

WELL DRILLER'S REPORT

State law requires that this report be filled with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

TO THE SECOND STATE OF THE		-		.,				
. VELLOWNER	7.	. WAT	EN LEV	VEL				
tame ITAMMANY School Dis8 #143		Static	c water	level	leet helow lan	nd surface.		
whom LEWISTON, I done 53001		Ar to al	alam ulwa	ond-le	es D-No G.P.M. flow			—
Uwner's Permit Na. 95-74-N-29-1		Contr	roffed b	γ:	☐ Velve ☐ Cap ☐ ☐ OF. Quality ☐ Cap	3 Plug		
2. JATURE OF WORK	В.		L TEST	DA	itA .			•
3 New well Deepened Cl Replacement	}	₫ Pu	amp	□	Bailer 🛘 Air 🔻	Other		_
Abandoned (describe method of abandoning)		Discharg	ge G,P,M.	 I	Pumping Level	Hours Pur	mped	_
		100	SPN	$\overline{\sum}$	360	-4		_
. PROPOSED USE	<u> </u>						_	_
Domestic Ofinigation D Test [] Municipal	-) ITH	lotogi	سے اور جو		<u> </u>	—	
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection	Hole	 	· · · · · · · · · · · · · · · · · · ·	-			Wat	4
Other (specify type)		From		L	Material			No
METHOD DRILLED			<u> </u>				 	\vdash
i γ □ Alf □ Hydraulic □ Heverse rotary			\square	\vdash	0/1			厂
ু টেলি । Dug । Other							世	世
5 /ELL CONSTRUCTION	-				(v) E / (E)	eds.d		<u> </u>
asing schedule: Steel C Concrete C Other				_		,	-	-
†hbbrons Dieneter From To		<u> </u> '	igsqcup	16	JEIL REPORT 3- 5-15-74	- H 7- / 7	∟'	L
inches fact feet feet inches fact feet	<u> </u>	1/47	1185	1	Ar & Blue BASA	. 15"	$\vdash \vdash$	X
inches inches feet feet		1 1	t I					
inches feetfeet as casing drive shoe used? □ Yes □ No		485	990	М	Ed HAY & RIVE B	ASHIT_	\square'	X.
as a position or each used? 🖸 Yes 🔘 No	$\vdash \vdash'$	+ 5 40	600	F.	rACTURE & Blue	- 13.0 CM/T	 	⊣
Perforeted? ☐ Yes ☐ No ow perforated? ☐ Fectory ☐ Knife ☐ Torch						Ĭ.		
ze of perforation Inches by inches	\square		\longrightarrow	کے	galgarhin	,	\square	
Number From To	$\vdash \vdash$							-
perforations feet feet feet feet		[
perforationsfeetfeet		\vdash						ŀ—
ali screen instalfad? ☐ Yes ☐ No anufacturer's name		[]		_		<u> </u>		
Type Model No	 	 	\longrightarrow	_			\Box	F
ameter Slot size Set from feet to feet	(<u>-</u>						1	H
e' 'er Stot size Set from feet to feet ir scked? □ Yes □ No □ Size of gravel	ļ			_		- "		
iceu from feet to feet		\longrightarrow	\vdash			· F	⁷	<u> </u>
rface seaf depthMaterial used in seal: ☐ Cement grout ☐ Poddling clay ☐ Well cuttings						nt		
aling procedure used: 🔲 Slurry pit 🖂 Temp. surface casing	<u> </u>	-	<u>-</u>	_		1		
☐ Overbore to seal depth	$i \longrightarrow$							\vdash
fedrod of Johnkig casing: □ Threaded □ Welded □ Solvent Weld	i	,	\vdash				\Box	
☐ Cemented between strata				—			l	
eribe access port	tn.		rk starte	ed ,	20936-77 finished	AU330-	77	
DEATION OF WELL					····		<u>—</u>	_
nap location must agree with written location.	17-				TIFICATION	·*tandar	4	
N	i				t all minimum well constru- the time the rig was remove		is w _o	лe
Subdivision Name					TRNYDrilling Fle		ı	
					•			-
Lot No Block No					5 [∞] C/NYKSTONA DO	te 3-4-10.		-
<u> </u>	i	Signed	l by (Fir	an C	Official) <u>(U</u> CO)	, Quay		
S NER DEVE	ı			ane	7	7/		_
V NE3 PEVEE - V SE/ V See 32 , T. SES QS, R. 5 EX	ı		K	Opera	ator) XM	huay	بيبيد	_
	ı				Market State	111 EM 124		

USE TYPEWRITER OR BALL POINT PEN

State o. Idaho (). Department of Water Resources

WELL DRILLER'S REPORT

State law requires that this report be filled with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

1	WELL OWNER	7. W	ATER	LEVEL				1
	Name CAL Fuchs	S	tatic wa	ter level.		ırface	A.	
	Address 8:50 httpuni Rd druksten Te	F	lowing? emperat	Ye C. ore	s & No G.P.M. How	60D	J 	_
	Dwner's Permit No. 85-76-N-7	1 A	rtesian e	closed-In	pressurep.s.i.			_
_	Owner's Permit No. 43	c	ontrolle	а Бү		C) Plug		
2.	NATURE OF WORK	8, W	ELL TE	ST DAT	ra Arn Tüst Sö			
	Milew well) Despend C Neplacement	_	Pump		Distaller Of Other	i		
		5		3.P.M.	Draw Down	Hours P.	amped	
	☐ Abandoned (describe method of abandoning)		50			ļ		
			·			†		
1	PROPORTS LIST				<u></u>			
7	Pomestic □ Irrigation ① Test □ Other (specify type)	9. L	.ITHOL	DGIC L	DG			
	1 Municipal Industrial Stock Waste Disposal or	Hale	Бер	oth	Material		Wet	ter
_	Injection	Diam.	From	To to		·····	Yaşı	No
,	i nh hkli i én	8	0	18	Spade Chay		1-	
	□ Cable	6	41	54	Saga Store		X	
			54	56	-Shake Ken	ving	 ' ' 	
ŧ	WELL CONSTRUCTION				~ hutet vf ~			
	Diameter of hole 6 inches Total depth 56 feet					•	┼╌┤	
	Casing schedule:						1	
	Thickness Diemeter From To	<u> </u>						
	inches feet feet							
	inches leet feet feet inches feet feet						\Box	
	inches feet feet	-		-			╃╾┩	
	Was cooling drive shoe used ? 点 Yes 日 No	 					+	
	Was a packer or seal used? ☐ Yes 龙 No Perforated? ☐ Yes ☑ No							
	How perforated? ☐ Factory ☐ Knife ☐ Torch						-├	
:	Size of perforation inches by Inches						 	
	perforationsfeetfeet					!	\square	_
	perforations feet feet						\vdash	<u> </u>
	perforations feet feet				4 60			
	Well screen installed? ☐ Yes 💆 No	<u> </u>			A. A.		 -	
	facturer's name Model No.			1.	- Can - Can	· · · · · · · · · · · · · · · · · · ·		
	Diameter Slot size Set from feet to feet				_ 6	<u></u>	┦	
	Diameter Slot size Set from feet to feet	_			e.	5.54.7	1 1	
	Gravel packed? D Yes DE No Size of gravel						\Box	1
	Pfaced fromfeet tofeet						+	
	Surface seal depth 38 Material used in seal C Coment grout	ļ					 	
	💆 Puddling clay 🔲 Well cullings	-		<u> </u>		- / X1	╀┤	-
	Bealing procedure used Stury pit Temperary surface cooling:							
	Overbore to seel depth	1		_				
	I ^^ATION OF WELL オイ	¹º′w	ork star	$\Upsilon_{ m sharp}$	OTILA 716_finished	Sat 16	171	<u>ر</u> ا
	. A map location must agree with written location.	 			7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	1.74 12		, _
	[14.0	RLIER	S CERTI	FICATION .			
	Subdivision Name.	Ι	T N-	R ₄	Pale 1/ ell Do	11:	10	
	W Separation Morne	l '	wm Plar	18-1	BY NE	Lighton N	14. <u>7()</u>	<u>ئ</u>
	Lot No Black No	,	dfotte_	COPA	age visto, Ida	Date 7-7	20.7	3
		8	igned by	(Fkm C	Milelon Lleono Ki	Buin	ره	,
	countyNEZ PERCE		•	07		00		-
	,			Юре	rator) William (1/5-	<u> </u>	_
	100 % 100 % Sec. 4, T. 35 N/9, R. 5 P/W				• *		· · · •	<u>ا</u>

SE TYPEWRITER SHE BALL POINT PEN

State c Iaho Department of Water Administration : ...

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Administration within 30 (1974) (1974)

Ε.	deys after the complisher b		OIMPER	01 1116 (ren.	<u> </u>		
	WELL OWNER	7. V	YATER	LEVEL	•	Called Callege	•••	
	Name TAMMANY School #343	8	Static w	eter (eve	l 55 feet below land su	ırface		/
ı	Address BY-LEGI'S TON I LAKO	Į f	fawing	7 OY	es IZ No G.P.M. flow			_
	,	4	\rtesion	closed-1	° #. Qualityp.s.l.			
	Owner's Permit No. 85-74-N-29		ontroll	ed by		🗆 Plug		
	NATURE OF WORK	В. У	VELL T	EST DA	TA		_	
	New well 🔲 Deepened 🗀 Replacement	ן כ) Pump		☐ Baller ☐ Other			
	☐ Abandoned (describe method of abandoning)		ischarge		Draw Down	Hours Pa	mped	口
	•			<u>PM</u>		- 4_		-
_				00				
3.	PROPOSED USE	}—			<u> </u>			
	☐ Domestic Ø Irrigation ☐ Test	9. 1		.OGIC L	.00			_
	☐ Municipal ☐ Industrial ☐ Stock	Hole Diam.	From	pth To	Material		-	No
	VF**100 DNILLED		0	1/	TOP Soil		-	
7			_4	19	cobble + GrAVI	£/		
_	1] oudle		39	37	CINY & ROCKED	Aber	1	-
E	WELL CONSTRUCTION		43	42	CINY TROOK BA	15.4.23		4
			49		Fracture 6 1005	e Basai)_	<u> </u>	V
	Diameter of hole 2 1/11 inches Total depth 40 7 feet.	_	75		BASAIT &CLAY		-	1
	Thickness Diameter From To		100	110	Blo 5 303012			4
	Inches PTF Inches + 6 feet 70 feet 100				BluBBASAIT See	tail	-	-
			120	154	BluE BASAI SMA	11 Scerin		
	Inches Inches feet Feet Inches Inches feet fact				Black WIGYBEN		\vdash	1
			200	25%	Black AASAIT So	Mar 23 00.00	<u>.</u> -	
	Was a packer or seal used? Yes (2 No		360	294	Blue BASA18-50	26PM		-
	'erforated? ☐ Yes ŪÍNo -low perforated? ☐ Factory ☐ Knife ☐ Torch				CYEVICE S	•	 -	1
	Size of perforation inches by inches		354	398	Blue BASAT W/S	Scoria		
	Number From To				1 GrEEN MINEY		6	\mathbb{H}
	perforations feet feet		<i>4</i> ⁄03	407	Bluk BASAL	7		-
	perforations feet feet							\square
	Welf screen installed? ☐ Yes # No Manufacturer's name	- 						
	Model No							
), er Stot size Set from feet to feet Dlameter Slot size Set from feet to feet							
				i				
	Prevet packed? ☐ Yes ☐ No Size of grevet							
					·			
	Juriece seal? ID Yes ID No To what depth \(\overline{Q} \overline{Q} \) feet daterial used in seal ID Cement grout ID Puddling clay	-						
	OCATION OF WELL						 	\dashv
	ketch map location must agree with written location,							\neg
		10, ***	nik 2(S)	.eu	#FCA 574 Minished	heredon	- 74	۷]
	├ 	44.6				· · ·		ᅦ
	w e				RTIFICATION led under my supervision an	al 4lata		, [
	· · · · · · · · · · · · · · · · · · ·	tre	ue to th	e best o	f my knowledge.	v uus r eport j	• /	´ [
			D F°	TRI	gy Orilling	15.	$\{\cdot\}$	- [
		Dr	iller's or	Firm's N		73 0		_
	MATTER PERCE	10	136	15	TI de Clarko	12 / 10 / 10 / 10 / 10 / 10 / 10 / 10 /		<u> </u>
	50 x 50 x 500 23 . T. 37 (DS, H. 5 EN)		ned By		Cle dray	5-15-7	4	₋ ┃
	SE ADDITIONAL SHEETS IF NECESSARY FORWARD	UE WI	HTF P	1115 41	ND PINIK COSTS TO		ш.	

State of Idaho Department of Water Resources

WELL DRILLER'S REPORT

11 State law requires that this report be filled with the Director, Department of Water days after the completion or abandonment of the well. WELL OWNER 7. WATER LEVEL MACANN Home EJ, MCCANN, LAND CO. Static water level 200 feet below land surface Flawing) 13 Yes & No G.P.M. flow Temperature 62 F. Quality GOOD Address L EWIS TON Owner's Permit No. 85-74-N-28 Artesian closed in pressure ____ ___p.s.l. Controlled by U Valve □ Cap □ Plug : NATURE OF WORK AIR TEST R. WELL TEST DATA 300 GPM. M Naw well □ Decorated □ Raplacoment □ Pump □ Safter Discharge G.P.M. Draw Down Abandoned (describe method of abandoning) 3. PROPOSED USE krigation] Domestic ☐ Test ☐ Other (specify type) 9. LITHOLOGIC LOG] Municipal Depth ☐ Industrial Stock ☐ Waste Disposal or Hole Water Materiel Diam. From To Miscillon Yes No 0 D CLAY Ř C MY DO DRILLED 4000 SANDY CLAY Rotory 🗆 Oug ☐ Čable ☐ Other 10 4. BUA LD. SANOY CLAY -WASA ! WELL CONSTRUCTION K ROSK Diameter of hole <u>\$\langle\$</u> inches Total depth 749 leet BASALT GRAY 4 LAUA PORUS 16.Y Coring schedule: 🖸 Qtool 183 ☐ Contrata BASALT (GRAY (SEAMEN) BASALT (GRAY (SEAMEN) λ Thick name From Dismeter To 250 Inches 8 Inches + 2 feet /37 feet 349 × ____ Inches . inches ____ feet ___ feet T LAVA inches ___ ____inches _ _ feet ÿ. BASALT DARK GRAY ____ inches ____ inches ____ __ feet _ feet 192 501 325 581 LAVA RASALT SKAMBO-GRAY inchae X Yes inches ____ feet Was casing drive shoe used? □ No Was a packer or seal used? 581 600 LAVA ☐ Yes DY No ī BASALT GRAY SEAMED Perforated? COD (149 ☐Yes MENo Τ How perinrated? D Factory D Knife D Torch VERY HARD 649 669 669 739 729 749 Size of perforation ______ inches by ___ GAVA k _ inches BASALT GRAY Number From __ perforations _ ____ feet __ feet _____ perforations ___ ____ feet __ Feet _ porforations .__ ____ feet _ Well screen installed? □ Yes □ No M 'acturer's name _ _ Model No. _ Diameter__ Slot size ___ Set from ____ feet to ___ Diameter__ Slot size ___ Set from___ __ feet to__ Placed from ____ _ .____ feet to____ Surface seal depth 127 Material used in seal

□ Coment grout Peddling clay (2 Well cuttings 🗆 Story pit 🖸 Tarap (C) Overbore to seel depth OCATION OF WELL Work started APRIL IL finished MAY 1974 ikatch map location must agree with written location. H. DRILLERS CERTIFICATION Firm Home BURNSY WITT Subdivision Name Signed by (Firm Official)_ NEZ PERCE

NE x NN x 300, 32, T. 35 NN, R. 5

Lab Number

97-76

Data Analyzed

03/10/97 GC/MS M. Sevier

Analyst Sample ID

Lewiston Leves Landfill LLL-1-3

Method 525.2 or 625 or 8270

Method 525.2 or 825 or 8270	45 1	LOW DI
COMPOUND	UG/L OR	MDL IN
	UG/KG	WATER
	T T	0.11
Acceptions	· 1 č 1	<u></u>
Acresphilitylens		
Amende	- 	0.11
	- 1 1 1	8.00
Ашнаул		0.07
Applignation	U	
Alinea	U1	0.16
Almaine		0.0%
Account to the second s		(3,51)
Berrow(b) (I known a thomas	0	0.30
Screen kill like synthese	U	0,54
December 1 to 1 to 1 to 1 to 1 to 1 to 1 to 1 t		0.08
Burgania (pyriatio	<u> </u>	0,03
Brunaul	, D	0.10
Bundeker	÷	0.08
Buryinia	<u> </u>	0.06
Burylenney's patholism	-	0.25
Carrierin	Ū	1,40
a-Chlore an	- - 	0.12
	- 1 ŭ	171
		0.22
-Nonachine Calcume	- 	0.59
Caperatana late	- 	(30
	· · · · · · · · · · · · · · · · · · ·	0.09
2-Chlorosprocyl	č	9.11
Antoropeophica	'5	0.514
Сыюруговор (Омадимов)		
Chigatha in all	U	0.12
Chrysono	т т.	0.055
Сунтын	Ų	0.17
Cyclosic	<u>.</u>	0.10
DCPA	U	4,09
CALDED	0	2.07
4,4'-DDE	ງ ບຸ	. 9708.
4,4'-DDT	1 1	0.08
Distriction	u	0.11
Orbertation in terretaristic	U	ω.
ill-o-Buryi pichalats	- · · · · · · · · · · · · · · · · · · ·	NI)
2.3-Dichlor Printeryl	-	<u> 1</u> 134
Dichloryon	" - 1	0.15
Design.	- i -	0.05
on (2-only the syl) adiques	··	0.09
bis(2-eshylheny))phihalese	- i - i -	ND.
Dientry phihalate	- i	0.17
	 i - ë	5.06
Okrosbyl philadete	 	3.16
2,4-thairmainess		0.10
2,6-Disservoham	Ų.	
Порозований	U	0.64
Direction	LI LI	0.62
Oladon aika		0.50
Dinafrico sulfexida	į į	
Endoration I		0.30
Enskaralhan II.		1,24
Endorullen palitie	. 1	0.13
landern.	Ų	0.29
Endrin elektryske	. 9.	0.19
ENG.	- · · · · · · · · · · · · · · · · · · ·	0.11
Parrage (Pipron)	- 1:- 1	80.
Companies (Bennet)		1 80
Bronocymi	· t ü	NU
Acaphata (Orthona)	- i i	ND ND
Market (Market)		

COMPOUND	ÜĞAL OR UGAKA	MDL IN WATER
Ethoprop	U U	E,II
Strickston	- i	0.16
	11	0.93
Total Paris		1,7 0
Phoene		0.00
Fharidan	<u> </u>	. 0.55
-BHC	- 0	0.20
F-BHC	U	0.31
E-BHC	0	0.21
pristite (Lindon)	- 1	6.13
Happachler	 -	0.06
Superative are site. 2,21,3,31,4,41,6-) imposed comparately.	 	<u>811</u>
Househouseanne	· · · · · · · · · · · · · · · · · · ·	0.13
7.7 A.7 5.6 Herachlorcombony	- '''	31.0
Himschlerocycloperantiene	 	0.41
- American	G	0.11
haloo(L,2,3-c,d)gyram	····	0.68
Lophorous	. 0	0,54
Methodychilor	บั	0.08
Mostry's puriscours	n.	0.17
Howischior		4.09
Meribasis		0.16
Mayimphoe	П.	6.20 0.04
AICK SA		0.03
MGK 264 - secure 6	 	0.59
Molinate		0.06
Napropunido		0.13
Northeann 2,2° 3,3° 4,5°,6,6°-Octarble-mhipmanyl	· · · · · · · · · ·	0.13
Posture		- 2.00
1,2°,1°,4,6-Perpagalyantan/serys	<u>-</u>	0.15
Poster Morrophones	- T	ND
cia-Pocuestino	<u>'''' ''</u>	7.03
unus-Prometers	· · ·	- 7U.D
Personalism	· ·	0.06
Procesion.	0	0.34
Promotrya	UU	0.08
Prominado	. 1	0.10
Prop. No.	- 1	0.77
Propulation	т	0.12
Рупфар		0,13
Sizestato		0.13
Simetryn		0.13
Stimfor		2.80
Chulbraten	U	2.10
	- 1 · ü	9,10
[code.dos	 	- 0.11
2.2. 4.4 Lecrobleroburgers	· Č	0.04
Indeposition	. n	0.33
Z_A_5-Trichicarchiphony	. 0	0.0
Tricyclazola	U	7.80
Patronia	U	0.10
Vernoisse	U	0.00
Pyrethrine (Pyrellin)		ND
Resease (Fysilia)	. 0	סא
Meaning (Sulphin)		МО
		I
Fernancei (Bubiguei)		מא

N/A

SURROGATES			Personn airrick
Acceptation - 410	40.9		
Photostheres - 410	78.7		
Chrysons - 412	121		
Treviews - d12	75.5		
Supervisor A Dela	 _	_Date	5-11-97

Leb Number Date Analyzed Analyst 97-76

03/10/97 GC/MS

M. Sevier

Sample ID

McCerso and EKO wells MCC-1-3

Method 525,2 or 625 or 8270

COMPOUND	UG/L OR UG/KG	MDL IN WATER
	- - 	0.11
coospribant		0.1L
Marker	ţ	0.16
Aldrin.	U	0.11
Academy	. 0	0.09
Amilyacens		0,07
Atmaga.	· ·	0.16
Amazina	. 0	9,20
Herea(a) methors came		0.30
lenko (b) Nocestano		134
Parameter Section	- 	1000
Beesto(g, h, i poryless	-1 i	0.03
Bernaria in proces	- 9	6.10
Busedier	J.	0.06
Buyerie	u ·	0.06
Betylicistyl philipdes	- U	0,25
Carbonia	U ""	1.40
a-Categoriane		0,12
g-(Modum	U	0,11
Nonethor	0	0,34
Chlores		0.09
Columbianish	Ü	1,30
2-Delerobishment	Ü	0.59
Calcorprophism	V	0.31
Chlorystics (Davapani)	" U _	" 0.04
Chloribalacil	- U	0.12
Chrysma		0,02
Cymerine	- 1	0.17
Cyecula		0.09
DCPA	-1	0.07
8,4°-DDD		0,08
4.4°-DDE	 	0.34
2,3°-DDT	1	0,11
Nicitan	. <u> </u>	3,01
Dipom(s_h)mshracono	 	SID
di-p-druyt philada		6.14
2.3-Dission-tensions		0.15
Distriction	- <u> </u>	0,03
out 3-sthy theory (paritiments	- U	0.09
but sethylancy/phrealate	Į,	ND
Dictry phinario	U	0.17
Dynashyi poshalete	U	0.06
2.4-Dinigrations	· · · · ·	0.10
L6-Disservaciones	U	0.56
Diposamed	· [_ · · · · · · · · · · · · · · · · ·	9,04
Dougles	- 0	0.62
Disalfoton sulleys		0.20
Distriction and district	U	0.30
Endosulfini I		0.44
Project July 17		9,13
Finite With reliate	- U	1,29
Codein		0.39
Erden enlabyes		- 0.19 - 0.11
EPIC	- T	- SIII
Process in Consent		- 100 -
Disposition (Peaker)	· - ':	- 3D
Bromozywi	v	- ND

сомнолир	UG/L OK UG/KG	MDL IN WATER
		0.11
ребио		0.16
110 1000	- 0	0.70
притирнов	"	1,30
on Lynn St		0.86
ar Olivern		0.33
Lerisloup .	, <u>0</u>	0.20
anc		0.31
8140		
BHC	- 1	0.21
BHC (Lister)	- t	0.15
eptendine	<u> </u>	9.15
	- U	0.0
2 3 3 4 4 6 Heptachlorosymusy		0.93
ar acklerokenseno	Ü	
Z A A La 6 - Horashlore and convi	- U	0.11
annol procycloperations:		940
	· ·	0.11
adapted 1, 2, 1-c, dipyroon		0.06
	· U	0.04
Boydeer Crist	· U .	0.438
Methodychlos	- 0	0.17
Marky I gargeren.		0.09
Matoischior		0.16
Ministration and the second se	 	0.20
Mevinphia		0.04
MGK 254 - Borner II	- 	0.03
MGK 264 - isomer b		0.09
M planes		0.08
Facespenie		0.13
Northymaton.		0.13
2.2.3.3.4.5.6.0 -Douentenshipterys	- V	0.09
Padaula		0.15
2.2' 3' 4.6 Peolechicoobipronyl		UN
Postschicerohosol	 	0.03
es-Premius.	- · · · · · · · · · · · · · · · · · · ·	0.07
unna-Permeshran		9.06
Physical acces	U	0.34
Propinion	U'	
Promiseye	0	0.08
Processide		0.10
Proposition		0,11
Pytopania	0	0.12
	ų į	0.07
Pyrous	- U	0.13
Simple of the second		0.13
Sametye	- 1	0.13
Spignated	- 1 - i -	3,20
(electricate)		210
Terrecii		0,10
) arbutos		0.11
Telomike	 č	0.04
2.2 4.4 Estachiorobiphaw		0.33
Typesenter		0,08
2,43-Trisik-mibiobasyl		2.60
Trioyclascie		0.10
Triffuedin	- 	0.08
Verminato		ND ND
Pyrobrine (Pyrollin)		- 1 NO -
Rotations (Pyrellan)		
Official (Contract)	<u> </u>	dk
Personal (Ruisipin)		עא

A19)

			Pergera Solida
SURROGATES Accompaigner - d10	45.4		
Photosphetos - 410	20		
Chrysten - d12	54.7 30.4		
Perylana - d12	- 1 · 2 · ***		21 67
	11: De	Date	3 /////
Supervisor	67. P 1		

Lab Number

97-77

Date Analyzed

03/10/97 GC/MS

Analyat

M. Savier

Sample ID Lewiston Leves Landfill Well #1 LCWW-1-2

Method 525.2 or 625 or 8270

COMPOUND	UG/L OR	MDL IN
	UGAKG	WATER
Accomplishmen	T	0.51
Accomplishyless	 	0.51
Aleshior	<u>u</u> .	0.16
Alleia	Ū	0.51
Ашилун	<u>u</u>	0.00
Anthrope Annois	G	0.47 0.16
Aincine	1 6	0.26
Berra(a) enchances	, č	0.20
B-suspite (Chaoramahana	l ö l	0.30
Herrica & Florescophysics	υ	0.54
Alemana(g, h, i nacrytome	0 :	0,05
Please de Incomes	13	0.01
Brossel Beautile		D'10 -
Hatyhio	1 V	0.06
Buryfbsuzyi parielimo	ŭ	0.25
Carbasin	Ŭ	1,40
A-Chlurdage	···· Ď ····	0.12
g-Chicetano	υ	0.11
k-Nomether	Ð	0, <u>22</u>
Chlocush Chlocotamakis	Ų	0,09
2-Casaropeay(U	0.09
Chloropropheen	i ü	0.11
Chlorpyrefor (Duraguard)	Ď	0,04
Chlorthalom	 	3.12
Chrysens	1 · 😈 - · ·	3,09
Сующейо	U	0.17
Cyalman	U	0.10
DCPA 4,4-00D	Y Y	3.09 0.07
4,4°-000	 ŭ -	3706
4,4-DDT	Ŭ	0,04
Discipun		0.11
Dibona (a, b. kmili/adama:	,,, c	0.01
di-o-dutyl phihalata	V	ND
2,2-13/eNerobipecayl	. 5.	··· 0.14
Discherrus Disalem		0.13
bis (3 shythaus) (badig ani	0	0.05
bis(2-ethylhenyl)pirchalauc	ΰ	ND
Chethyl phthaire	- 1	0.37
Dienstry Lphahas	1	0.06
2, 4-Dinitrotoissus	U	9.10
2.6-Diescrotosiscos	υ	0.16
Diprovented	П	9.04
Derulicaea.	Ţ,	0.62
Denultura autore	Ų.	3.07
Epitomulian I	 	130
Endonuling V	e	0.44
Endonulten sulfere	0	0.13
Endria	Ü	0.29
Endrin Michiga	נו	0.19
EFTC	1 1	0,11
Piperelia (Pioran)	Ų	ND UK
(Named for (Peater) Becommytel	 	אם.
Acephan (Ontono)	+ +	· 86
<u> </u>		

COMPOUND	UG/L OR	MDLIN
odini obilia	UG/KG	WATER
Ethoprop	7	0.11
Strainzole	▎▀▀Ŏ ▘┈┙	0.14
Panamata and a second	- 5 -	0.95
Constituted	ō	1.20
Paterina	0	0.06
Physicae	U	0.33
a-BHC 3-BHC		0.2d 0.01
8-BHC	 	0.21
g-BHC (Lindson)	l ö l	933
Repuration	<u>"Ū" </u>	0.13
Haptachler aposisio	U	0.28
7,1°, 7, 3°, 4,4°, & Haptachlaroughnough		IF (I
Heraciscrob-maras	<u></u>	0'12
22,4,4'3,6'-Housetourchiphonyl Housebforourskopenustlere	0	0.11
Hereacour	┣═╬╸ ┈┥	. 4.61
Indeport 7.3 + Alpyricut	┡╸ ╬╌┯┥	0.06
auphoruse	' 	0,04
Methoxyoldor	Ū	n'es
Methyl persona	<u> </u>	0.17
Metoisabler	<u> </u>	0.59
Matribusia. Mayimba	U U	0.70
MGK 254 - women a	- 	0.44
MGK 254 - women b	 	0.53
Molum	- 	0.69
N-11-11-11-11-11-11-11-11-11-11-11-11-11	5	0.06
Northean	·· · · · · · · · · ·	0.19
2,2',3,3',4,5',6,6'-Ostactuorshipherwit	U	0,13
Peleniana Peleniana	1 1	0,05
22'3'4.6 Pentagolombinto ny 1 Pencaristanghani	 ö	ND
cio-Permetterio	 j 	0.05
Craus- Coronections	Ü	0.07
Phenesikywa	U U	B.026
Progradice	, U	0.33
Решнеция	ט	90.06
Promangue	0	0.10
Propadio	Ü	0.61
Руково	┡╼╼┋╸ ╌┹┪	0.07
Simezine	 	0.75
Боломун	Ū	0.13
Startelon	Ū	0.13
deminer	IJ	LM)
Tomani		110
T sebulas	1)	0.10
Terburya	Ü	6'11
(1) , 4, 4 Tournalis reviews 10; 1	 	0.33
2,4,5-Tricklorobiphecyl	 	5,09
Licyclasola	i č	2,40
Erithandia	Ü	0,[0
Vaccolate	<u> </u>	11.08
Pyrethrine (Pyrellin)	0	ND
Potence (Pyrellin)	U	УЮ
Metabaryi (Sidoka)	0	ND
Ferminal (Rubigan)	- 1	ND
17		

SUR	JIOGA.	ES
	1.4	

1

Prosentiones - d10 Chayerra - d12 11.4 57.7 67.4 58.1

Supervisor Been

hargets (set as

Date 3.//-9.7

NVA

Leb Number

97-78

Date Analyzed

03/10/97 GC/MS

Analyst

M. Sevier

Sample tD

Lewiston Levec Landfill Well #1 LCTL-1-2

Method 525.2 or 625 or 8270

COMPOUND	UG/L OR UG/KO	MOL IN W <u>ATER</u>
conspirations		4.11
locosphihylene		0.11
the later		IL IX
Apidem .	U "	0.11
proceya	. П	0.09
unibracene		9,07
links.		0.08
unzine	. 6	0,68
PROBLE CONTRACTOR	. 0	0.20
corrected (b) (b) corrected and	п	0.30
perputa is a fundamental bosons		·· 0.54
lamaig b (i)paghan		9,05
comple pyrom		0.03
(comments		0.10
tunestor	U	0.06
Subylate:		0,25
Burylinessyl phihalate		L.40
Carbonin	- 1	0,12
-Chloriers		0'13
g-Objectures	- 0	
Nonechlor		0.09
Calcimon		139
- Allege Control of the Control of t		0.09
2-Chlorobiphonyl	- i	0.11
Chlorope coners.	- 1 - č	3.04
Chlorpyriles (Duraguard)	- ŭ -	0.12
Chlorhelonii	- 1 - ŏ -	0.08
Caryona	 ' ' ŭ	0.17
Cymnaine	 č -	01.6
Cyclosia DCPA	 	0.09
4.4°-DDD	 	0.67
(4-00E	" 	0.08
4,4'-DDT	- 1	0.02
Diazinon		<u> </u>
Niberrya, b)anthracens	- 	0.01
dem-Ranyl postuanco		ND
A.S. Die Storebiesensch		0.14
Mohiervos	- i -	0,15
Disast to	- 0	0.05
biot2-sthyltoxy()odipeto	U	0,09
cial Lecay theory (lob) lantate	<u>'</u> ਹ	,NO
Direkyl pothalese	U	0.77
Demonyl phobalaus	- U	0.06
2,4-Dinitrofologo	U	9.10
7, b-Dimitrosoftions	V	0.16
Diphenamia	<u>. j</u>	0,04
Distriction	Ŭ.:	0.62
Christian - Mary	1 1	0.07
Dinuliono sulforida	Ü	0.20
Endorution I	Y 0	3.30
lindovaden il]; 1)	0.44
Endowellan edilese	. 0	0.33
Notice	· ·	0.29
Estima eldebyde	- j' . U	0.19
EFTC		0.11
Proceedin (Pipens)		AD.
Discorbles (Person)	U "	ND
Bromovyna	·	מא
Aceptais (Orthorn)	Ū	ND

COMPOUND	UG/L OR UG/KG	MDL IN WATER
		0.11
ndimole	 	0.16
	- 1 - 5 - 1	1,35
nation.		(.30
Proc		0.06
andors	l · U	0.55
BHC:		0.20
IRC	- J'	9.31
PHC		5.2L
RFC (Limited)	 i	0.15
openider	- v 	0.13
	- 0	0.56
egosáslor epositile 2°,3,3°,4,4°,5 Regusásloroóiphunyi	 0 -	0.11
sandore many	U	0.13
2' 4.4' 3.6'-Hexachlorobipsenvi	—	011
crack lococyclopania ipre		970
erasinone	- t	ILE
		0.06
	-0	0.54
optorous	- j	0.01
properyedian	· · · · · · · · · · · ·	0.17
ecoys puresson.	· · · · · · · · · · · · · · · · · · ·	9.00
arizain	V	0.18
		0,20
IGK 264 - isomert a	. 0	0.64
MX 244 - income 6	- 0	0.03
foinee	· U	0.09
	 -	0.06
epropagate (pribasean		0.13
2.33'-45'-6.6'-Octockscarhiphenyl	- T - T - T	0.13
7. 773. 473 'Pon appronent/constituent/		0.06
2'3',4,6-Periachlocomptomy!	- 1 ··· · · · ·	0.13
Caracat Local Control		ND
- Pago-caltrin.	····	0,03
non-Fermelian		10,0
Teconolistas	- 1 - i -	0.0%
comeson		0.38
	 	0.08
romerys	 	3.10
Processis -	 1 	0, 1
Procession		0.12
	1)	0.07
Pyrocos	- 1 0	0.33
Samuel Labo	· Ü	70,335
Storetos	- Ū	0.13
	- i	7.80
l'obsalitures	- -	210
Terlecii	 	0.10
Terhalice		9.11
Larbatron	— - 1 - 5 -	7,04
Transporter.	- i - i	0.33
2 4,5 Tricilerobiphosyl	· · · · · · · · · · · · · · · · · ·	0.08
Z-4,, i minestronius esti	- i -	2.60
Leicyelasola	- 0	0.10
(pi line -	j	0.08
Vorsolno		ND
Pyreshrina (Pyrellin)	- 1 	NO
Roisson (Pyrellin)	- +ë	80
Metabacy (Subfac)		
	 → ∪	SD

31	II.	Ю	÷Α	ES	

Chrysopo - d12 Parylana - 417

Supervisor_

Percent Solids

N/A

21.7 60.2 60.7

Date 3.1/-9.7

Lab Number

97-80

Dete Analyzed

03/10/97 GC/MS

Analyet Sample ID M, Sevier Terrmeny Creek wells TCTS-1-2

Method 525.2 or 625 or 8270

COMPOUND	UG/L OR UG/KG	MDL IN WATER
comphibers		0.11
occupator) keep	·	(F.13)
Decision .	. u	9.16
Mria.	. 0	9.11
The state of the s	Ū	(0.0)
or the state of	. υ	0.07
д а ша.	. u	0,16
E/MEZINA		0.08
iceste) ratio mone	-	0.30
erse bhhomatans	-	0.34
Genzo kirkunemathumb	 	9.04
Sermo(<u>)</u> A ₁ ,()Coyene Como(a)Cyene	U	0.03
	· · · · · ·	0.10
Streething	<u> </u>	Ġ,DH.,
ruty ale		0799
Tray biomary I philadeless	U .	··· 9.25
Arburin.		1.40
Nomitato	<u> </u>	0.12
2 Skordano	. 0	0.11
-Houselder		0.72 0.09
Calonab		1.36
Chlorobodalisto		0.329
2-Calorodophory)	- '	0.11
Acres	`	0,04
Chlorpyridos (Dunguard)		0.12
Chloribateral	- 1 - i -	J.08
Chryston	 	0.17
Cyconomic		0,10
DCPA		0.09
4.400D	· · · · · · · · · · · · · · · · · · ·	3.07
4,3° DDE	- U	0.08
4,4'-DDF		9.08
Determon	, v	1,DL ·
Dibear(s,a)sudersomo	U	ND.
di-n-listy) probates	- - ; -	634
1,5-Dichlocomytemyt	 	0.15
Schlerver Diekize		7,52
Na(2-eshylhercy/)actipace	1 · · · · · · · · · · · · · · · · · · ·	0.09
his 2-conymency (postballe)	- U	ND
Dutini pohelnia	- U	, 0T1
Ormerbyl philade	υυ	0.06
2, Unisystohusus	- <u>-</u> -	0.19
Z 6-Disseconbuses	. U	0.16
Dyphenerpid	U U	0.04
Displacen		0.62
Distribution sellicos	- 0	3.87
Darulicom sulimbrio	, ,	0.30
Endorulian i	, U	0.44
Endoralfan II		0.13
Torkenijes militie		0.29
Exerno	 	- 0.19
Entirin aldobydo		3.11
ERIC	-	- ND
Pipomiin (Pipron)		ND
Browning (Comm)		ND
Accelera (Orthera)	- 1	ND

COMPOGNO	UG/L OR	MDLIK
	UG/KO	WATER
Elhopoo		0.11
ernistasis	U	970
ZITELEND		0.35
Ferre	. 1	1.20
Phropage		4.06
Pheidoot		0.15
e-RHC	. U	0.20
5-BHC	. 0	021
A-PARIC		8.25
r-BHC (Circleso)		0.13
Hartaction	- 8 - 1	0.04
Hoperchire comple	-·· ·	0.11
2.2.3.2.4.4.6.Hopedstorningtocks	- 1 - 1 - 1	9.13
Para a di Signi - Hagas di Arron manoni	 	0.11
2.5°, 4.4°, 5,6°-Hades reconnected	- 0	0.07
Harischloropyclopematicus:	- 1 - i -	0.11
Industrial (2,2-c.a)pyross	U _	0,56
	л	3,64
Leopharcus	<u> </u>	0.04
Methodychlóz Methyd pamawóń	. 0	B.17
Madeanka	3	0.63
Magrouse	U	0.16
Morandon	Ψ. ψ	0.20
MOIC 264 - sicesse +	- U	0704
MICH. 264 - incusion b	0	9.09
Notman	U	0.05
Маркориаці II	<u> </u>	0.13
Northernon.	, U	0.13
2.5°,3.3°,4.5°,6.6°-Demonstrongstarteri		0.03
PERMIT	- - 5 -	0.13
2.2.3.4.6 Permethorning (ND
Propodicrophenel		U.AG
Comp. Permeter in	- U	(7.6)
Tagget become	31	0,06
Promition.	17 "	1038
Promityo	D.	0.04
Permission	U U	0.16
Designation 1	T U	4.11
Propulatio	U	0.12
Румки	- U	
Simolog	· · · ·	9.13
Simetrya	. · · · · · · · · · ·	0.13
Startofon	- 	120
[chulbieror]		2.10
[erbeck]	· · · · ·	0.10
Teritolog	- 	0.11
2 common and a second	 	1004
2.2", d.4" (Comodorobiphetts)	 	0,53
(putation)	 	U.48
2.4.5-Tricklarobipheter	- 1	2.60
Cricyclassis.	- 1 0	0.10
Tribusiin	- 1	0.09
Verminio		ND
Pyredenius (Pyrellin) Rescuent (Pyrellin)		ИЛ
Metalacyi (Sobdan)		ND
(Houseaste (Glasses)		
Feneranoi (Riibigan)		др

SURROGATES		
Acompolicae - 410		30.3
Photostheoro - d10		34.t
Chrysons - 412		BA.
Aurylana 413	フィーク	56.1
	Acres 60	
Supervisor	C.C. 1) 41	_ <u>.</u> .

____Date___3_//-9_7

Person Bolida

9/A

JUL 1

LAB: BOISE, Phone: (208) 334-2235

Section Manager, Inorganic Chemistry: Jim Dodds

IDEQ - LEWISTON
WADE MELTON
1118 F STREET
LEWISTON, ID 83501

Tracking Number: 40297-0114/

(Please Refer to this Tracking Number on any communications)

Grant/Project: 8297

NCIRO-Lewiston - RESERVED - NCIRO

Survey Name: LEWISTON LEVEE LANDFILL WELL #4

Storet: NPDES No.:

Sample Location: LLL-4-1

Collected by: WADE MELION pose: Other

mose: Other

Type of Sample:

Composite: No

Preservation: H2SO4, Cooled 4° C

Date Collected: 02/10/97 Date Received in Lab: 02/12/97

Ϊ	STORET TEST PERFORMED	RESULTS	COMPLETED	anst
ı	J14821 1401 1401		·	
	20630 Total NO2 + NO3 as N	2.99 (mg/l)	02/18/97	BL

LAB: BOISE, Phone: (208) 334-2235

Section Manager, Inorganic Chemistry: Jim Dodds

IDEQ - LEWISTON
WADE MELTON
1118 F STREET
LEWISTON, ID 83501

Tracking Number: 40297-0118/

(Please Refer to this Tracking Number on any communications)

Grant/Project: 8297

NCIRO-Lewiston - RESERVED - NCIRO

Survey Name:

Storet: NPDES No.:

Sample Location: LLL-1-2 Collected by: WADE MELTON

:pose

__ken From: Well - W

Type of Sample:

Composite: No

Preservation: H2SO4, Cooled 4° C

Date Collected: 02/07/97 Date Received in Lab: 02/12/97

STORET TEST PERFORMED	RESULTS	COMPLETED	anst
00630 Total NO2 + NO3 as N	<0.005 (mg/l)	02/18/97	₽Ŀ

LAB: BOISE, Phone: (208) 334-2235

Section Manager, Inorganic Chemistry: Jim Dodds

IDEQ - LEWISTON
WADE MELTON
1118 F STREET
LEWISTON, ID 83501

Tracking Number: 40297-0120/

(Please Refer to this Tracking Number on any communications)

Grant/Project: 8297

NCIRO-Lewiston - RESERVED - NCIRO

Survey Name: MCCANN & EKO WELLS

Storet: NPDES No.:

Sample Location: MCC-1-1 Collected by: WADE MEDION

rpose: Other ken From: Well - W

Type of Sample:

Composite: No

Preservation: H2SO4, Cooled 4° C

Date Collected: 02/06/97 Date Received in Lab: 02/12/97

STORET	TEST PERFORMED	RESULTS	COMPLETED	Anst
50630	Total NO2 + NO3 as N	9.25 (mg/l)	02/18/97	BL

LAB: BOISE, Phone: (208) 334-2235

Section Manager, Inorganic Chemistry: Jim Dodds

IDEQ - LEWISTON
WADE MELTON
1118 F STREET
LEWISTON, ID 83501

Tracking Number: 40297-0121/

(Please Refer to this Tracking Number on any communications)

Grant/Project: 8297

NCIRO-Lewiston - RESERVED - NCIRO

Survey Name: MCCANN & EKO WELLS

Storet: NPDES No.:

Sample Location: MCC-1-2 Collected by: WADE MELTON

rpose: Other ...ken From: Well - W

Type of Sample:

Composite: No

Preservation: Cooled 4° C

Date Collected: 02/06/97 Date Received in Lab: 02/12/97

STORET	TEST PERFORMED	results	COMPLETED	anst
00940	Chloride	76.8 (mg/l)	02/13/97	во

LAB: BOISE, Phone: (208) 334-2235

Section Manager, Inorganic Chemistry: Jim Dodds

IDEQ - LEWISTON
WADE MELTON
1118 F STRRET
LEWISTON, ID 83501

Tracking Number: 40297-0122/

(Please Refer to this Tracking Number on any communications)

Grant/Project:

8297

NCIRO-Lewiston - RESERVED - NCIRO

Survey Name:

MCCANN & EKO WELLS

Storet:

NPDES No.:

Sample Location: EKO-1-1

Collected by:

Other MELTON

rpose: .ken From:

Well - W

Type of Sample:

Composite:

No

Preservation:

H2SO4, Cooled 4° C

Date Collected: 02/06/97

Date Received in Lab: 02/12/97

STORET TEST PERFORMED	RESULTS	COMPLETED ANST
		
00630 Total NO2 + NO3 as N	12.1 (mg/1)	02/18/97 BL

LAB: BOISE, Phone: (208) 334-2235

Section Manager, Inorganic Chemistry: Jim Dodds

IDEQ - LEWISTON
WADE MELTON
1118 F STREET
LEWISTON, ID 83501

Tracking Number: 40297-0123/

(Please Refer to this Tracking Number on any communications)

Grant/Project: 8297

NCIRO-Lewiston - RESERVED - NCIRO

Survey Name: MCCANN & RKO WELLS

Storet: NPDES No.:

Sample Location: EKO-1-1R Collected by: WADE MELTON

rpose: Other .ken From: Well - W

Type of Sample:

Composite: No

Preservation: H2SO4, Cooled 4° C

Date Collected: 02/06/97 Date Received in Lab: 02/12/97

STORET TEST PERFORMED	RESULTS	COMPLETED	ANS
00630 Total NO2 + NO3 as N	12.1 (mg/l)	02/18/97	BL

LAB: BOISE, Phone: (208) 334-2235

Section Manager, Inorganic Chemistry: Jim Dodds

IDEQ - LEWISTON WADE MELTON 1116 P STREET LEWISTON, ID 83501

Tracking Number: 40297-0124/

(Please Refer to this Tracking Number on any communications)

Grant/Project:

8297

NCIRO-Lewiston - RESERVED - NCIRO

Survey Name:

Storet: NPDES No.:

Sample Location: EKO-1-2

Callected by:

WADE MELTON

pose:

laken From:

Well - W

Type of Sample:

Composite:

No

Preservation:

Cooled 4° C

Date Collected: 02/06/97

Date Received in Lab: 02/12/97

STORET	TEST PERFORMED	RESULTS	COMPLETED :	anst
 	Chloride	806.2 (mg/l)	02/13/97	B0

LAB: BOISE, Phone: (208) 334-2235

Section Manager, Inorganic Chemistry: Jim Dodds

IDEQ - LEWISTON WADE MELTON 1118 F STREET LEWISTON, ID 83501

Tracking Number: 40297-0109/

(Please Refer to this Tracking Number on any communications)

8297 Grant/Project:

NCIRO-Lewiston - RESERVED - NCIRO

TAMMANY CREEK WELLS Survey Name:

Storet: NPDES No.:

Sample Location: TCR-1-1 WADE MELITON Collected by:

Other mpose:

Unknown - U __ken From:

Type of Sample:

Composite:

No H2SO4, Cooled 4° C Preservation:

Date Collected: 02/10/97

Date Received in Lab: 02/12/97

Time Collected: 09:30

STORET TEST PERFORMED	RESULTS	COMPLETED	anst
00630 Total NO2 + NO3 as N	1.76 (mg/l)	02/18/97	BL

LAB: BOISE, Phone: (208) 334-2235

Section Manager, Inorganic Chemistry: Jim Dodds

IDEQ - LEWISTON WADE MELTON 1119 F STREET LEWISTON, ID 83501

Tracking Number: 40297-0110/

(Please Refer to this Tracking Number on any communications)

Grant/Project:

NCIRO-Lewiston - RESERVED - NCIRO

Survey Name:

TAMMANY CREEK WELLS

Storet:

NPDES No.:

Sample Location:

TCTS-1-1 WADE MELTON

Collected by:

Other

mose: __ken From:

Unknown - U

Type of Sample:

Composite:

No

Preservation:

H2SO4, Cooled 4° C

Date Collected: 02/10/97

00630 Total NO2 + NO3 as N '

Time Collected: 10:00

STORET TEST PERFORMED

RESULTS	COMPLETED	anst
17.5 (mg/l)	02/18/97	BL

Date Received in Lab: 02/12/97

LAB: BOISE, Phone: (208) 334-2235

Section Manager, Inorganic Chemistry: Jim Dodds

IDEQ - LEWISTON
WADE MELTON
1118 F STREET

DEWISTON, ID 83501

Tracking Number: 40297-0111/

(Please Refer to this Tracking Number on any communications)

Grant/Project: 8297

NCIRO-Lewiston - RESERVED - NCIRO

Survey Name: TAMMANY CREEK WELLS

Storet: NPDES No.:

Sample Location: TCTS-1-1R Collected by: WADE MELTON

mpose: Other

__xen From: Unknown - U

Type of Sample:

Composite: No

Preservation: H2SO4, Cooled 4° C

Date Collected: 02/10/97 Date Received in Lab: 02/12/97

STORET TEST PERFORMED	RESULTS	COMPLETED ANST
00630 Total NO2 + NO3 as N	17.3 (mg/l)	02/18/97 BL

LAB: BOISE, Phone: (208) 334-2235

Section Manager, Inorganic Chemistry: Jim Dodds

IDEQ - LEWISTON WADE MELTON 1118 F STREET LEWISTON, ID 83501

Tracking Number: 40297-0112/

(Please Refer to this Tracking Number on any communications)

Grant/Project:

8297

NCIRO-Lewiston - RESERVED - NCIRO

Survey Name:

TAMMANY CREEK WELLS

Storet:

NPDES No.:

Sample Location: TCC-1-1

Collected by:

WADE MELITON

pose:

Other

__ken From:

Unknown - U

Type of Sample:

Composite:

No

Preservation:

H2SO4, Cooled 4° C

Date Collected: 02/10/97

Date Received in Lab: 02/12/97

STORET TEST PERFORMED	RESULTS	COMPLETED ANST
		
00630 Total NO2 + NO3 as N	0.011 (mg/1)	02/18/97 BL

LAB: BOISE, Phone: (208) 334-2235

Section Manager, Inorganic Chemistry: Jim Dodds

IDEQ - LEWISTON
WADE MELTON
1118 F STREET
LEWISTON, ID 83501

Tracking Number: 40297-0113/

(Please Refer to this Tracking Number on any communications)

Grant/Project: 8297

NCIRO-Lewiston - RESERVED - NCIRO

Survey Name:

Storet: NPDBS No.:

Sample Location: TRIP BLANK Collected by. WADE MELTON

:pose

__ken From: Unknown - U

Type of Sample:

Composite: No

Preservation: Cooled 4° C

Date Collected: 02/10/97 Date Received in Lab: 02/12/97

Time Collected: 09:00

STORET	TEST PERFORMED	RESULTS	COMBLELED	anst
00940	Chloride	<0.9 (mg/l)	02/13/97	ВО

NOTES:

Four individual trip blank VOC containers for chroride analysis combined for one analysis per wade metton

LAB: BOISE, Phone: (208) 334-2235

Section Manager, Inorganic Chemistry: Jim Dodds

IDEQ - LEWISTON
WADE MELTON
1118 F STREET
LEWISTON, ID 83501

Tracking Number: 40297-0127/
(Please Refer to this Tracking Number on any communications)

Grant/Project: 8297

NCIRO-Lewiston - RESERVED - NCIRO

Survey Name: LYNDSAY CREEK

Storet: NPDES No.:

Sample Location: LCBC-1-1 Collected by: WADE MELTON

Type of Sample:

Composite: No

Preservation: H2SO4, Cooled 4° C

Date Collected: 02/11/07 Date Received in Lab: 02/12/97

STORET TEST PERFORMED	RESULTS	COMPLETED ANST
		
00630 Total NO2 + NO3 as N	$10.3 \ (mg/l)$	02/18/97 BL

LAB: BOISE, Phone: (208) 334-2235

Section Manager, Inorganic Chemistry: Jim Dodds

IDEQ - LEWISTON
WADE MELTON
1118 F STREET
LEWISTON, ID 83501

Tracking Number: 40297-0128/
(Please Refer to this Tracking Number on any communications)

Grant/Project: 8297

NCIRO-Lewiston - RESERVED - NCIRO

Survey Name: LYNDSAY CREEK

Storet: NPDES No.:

Sample Location: LCWW-1-1 Collected by: WADE MELTON

rpose: Other .ken From: Unknown - U

Type of Sample:

Composite: No

Preservation: H2SO4, Cooled 4° C

Date Collected: 02/11/07 Date Received in Lab: 02/12/97

STORET TEST PERFORMED	RESULTS	COMPLETED ANST
00630 Total NO2 + NO3 as N	18.3 (mg/1)	02/18/97 BL

LAB: BOISE, Phone: (208) 334-2235

Section Manager, Inorganic Chemistry: Jim Dodds

IDEQ - LEWISTON WADE MELTON 1118 F STREET LEWISTON, ID 83501

Tracking Number: 40297-0129/

(Please Refer to this Tracking Number on any communications)

8297 Grant/Project:

NCIRO-Lewiston - RESERVED - NCIRO

Survey Name:

LYNDSAY CREEK

Storet:

NPDES No.:

Sample Location: LCWW-1-1R Collected by: WADE MELTON

mose:

Other

__ken From:

Unknown - U

Type of Sample:

Composite:

No

Preservation:

H2SO4, Cooled 4° C

Date Collected: 02/11/07

Date Received in Lab: 02/12/97

STORET T	TEST PERFORMED	RESULTS	COMPLETED	anst
l				
"00630 T	Potal NO2 + NO3 as N	18.4 (mg/l)	02/18/97	$\mathbf{B}\mathbf{L}$

LAB: BOISE, Phone: (208) 334-2235

Section Manager, Inorganic Chemistry: Jim Dodds

IDEQ - LEWISTON
WADE MELTON
1118 F STREET
LEWISTON, ID 83501

Tracking Number: 40297-0130/

(Please Refer to this Tracking Number on any communications)

Grant/Project: 8297

NCIRO-Lewiston - RESERVED - NCIRO

Survey Name: LYNDSAY CREEK

Storet: NPDES No.:

Sample Location: LCCP-1-1
Collected by: WADE MELTON

collected by: WADE MELTON rpose: Other Linknown - U

Type of Sample:

Composite: No

Preservation: H2SO4, Cooled 4° C

Date Collected: 02/11/07 Date Received in Lab: 02/12/97

STORET TEST PERFORMED	RESULTS	COMPLETED	anst
00630 Total NO2 + NO3 as N	6.37 (mg/l)	02/18/97	BL

LAB: BOISE, Phone: (208) 334-2235

Section Manager, Inorganic Chemistry: Jim Dodds

IDEQ - LEWISTON
WADE MELTON
1118 F STREET
LEWISTON, ID 83501

Tracking Number: 40297-0131/

(Please Refer to this Tracking Number on any communications)

Grant/Project: 8297

NCIRO-Lewiston - RESERVED - NCIRO

Survey Name: LYNDSAY CREEK

Storet: NPDES No.:

Sample Location: LCGB-1-1 Collected by: WADE MELTON

rpose: Other Unknown - U

Type of Sample:

Composite: No

Preservation: H2SO4, Cooled 4° C

Date Collected: 02/11/07 Date Received in Lab: 02/12/97

STORET	TEST PERFORMED	results	COMPLETED	ANST
			+	
ზ0630	Total NO2 + NO3 as N	1.33 (mg/l)	02/18/97	\mathtt{BL}

LAB: BOISE, Phone: (208) 334-2235

Section Manager, Inorganic Chemistry: Jim Dodds

IDEQ - LEWISTON
WADE MELTON
1118 F STREET
LEWISTON, ID 83501

Tracking Number: 40297-0132/

(Please Refer to this Tracking Number on any communications)

Grant/Project: 8297

NCIRO-Lewiston - RESERVED - NCIRO

Survey Name: LYMDSAY CREEK

Storet: NPDES No.:

Sample Location: LCTL-1-1 Collected by: WADE MELTON

tpose: Other

ken From: Unknown - U

Type of Sample:

Composite: No

Preservation: H2SO4, Cooled 4° C

Date Collected: 02/11/07 Date Received in Lab: 02/12/97

Time Collected: 12:00

 STORET
 TEST PERFORMED
 RESULTS
 COMPLETED
 ANST

 00630
 Total NO2 + NO3 as N
 0.008 (mg/l)
 02/18/97
 BL

NOTES:

UNPRESERVED TOTAL AMMONIA <0.005 MG/L AS N.

King

LAB: BOISE, Phone: (208) 334-2235

Section Manager, Inorganic Chemistry: Jim Dodds

IDEQ - LEWISTON
WADE MELTON
1118 F STREET
LEWISTON, ID 83501

Tracking Number: 40297-0133/

(Please Refer to this Tracking Number on any communications)

Grant/Project: 8297

NCIRO-Lewiston - RESERVED - NCIRO

Survey Name: LYNDSAY CREEK

Storet: NPDES No.:

Sample Location: LCTL-1-1R
Collected by: WADE MELTON
Troose: Other

mpose: Ot

"ken From: Unknown - U

Type of Sample:

Composite: No

Preservation: H2SO4, Cooled 4° C

Date Collected: 02/11/07 Date Received in Lab: 02/12/97

STORET TEST PERFORMED	results	COMPLETED	anst
00630 Total NO2 + NO3 as N	<0.005 (mg/l)	02/18/97	

State of Idaho, Department of Health and Welfare Bureau of Laboratories - Boise Laboratory 2220 Old Penitentiary Road, Boise, Idaho 83712

WATER QUALITY REPORT - CHEMICAL REPORT

LAB: BOISE, Phone: (208) 334-2235

Section Manager, Inorganic Chemistry: Jim Dodds

IDEQ - LEWISTON WADE MELTON 1118 F STREET LEWISTON, ID 83501

Tracking Number: 40297-0278/

(Please Refer to this Tracking Number on any communications)

Grant/Project:

8297

NCIRO-Lewiston - RESERVED - NCIRO

Survey Name:

LAPWAI

Storet: NPDES No.:

Sample Location: LPC-1-1

Collected by:

WADE MELTON

mpose:

Other

∡en From:

Unknown - U

Type of Sample:

Composite:

No

Preservation:

H2SO4, Cooled 4° C

Date Collected: 02/12/97

Date Received in Lab: 02/14/97

STORET TEST PERFORMED	RESULTS	COMPLETED	anst
00630 Total NO2 + NO3 as N	$\frac{1}{0.970 \text{ (mg/1)}}$	02/18/97	BL

LAB: BOISE, Phone: (208) 334-2235

Section Manager, Inorganic Chemistry: Jim Dodds

IDEO - LEWISTON WADE MELTON 1118 F STREET LEWISTON, ID 83501

Tracking Number: 40297-0279/

(Please Refer to this Tracking Number on any communications)

Grant/Project: 8297

NCIRO-Lewiston - RESERVED - NCIRO

LAPWAI

Survey Name:

Storet: NPDES No.:

Sample Location: LPC-1-1R Collected by: WADE MELTON

Other mose:

Unknown - U __ken From:

Type of Sample:

Composite: No

H2SO4, Cooled 4° C Preservation:

Date Received in Lab: 02/14/97 Date Collected: 02/12/97

STORET TEST PERFORMED	results	COMPLETED ANST
DOCAGO THEFT WOOD IN N	1 00 (mg/1)	02/18/97 BL
00630 Total NO2 + NO3 as N	1.00 (mg/1)	UZ/10/5/ DE

LAB: BOISE, Phone: (208) 334-2235

Section Manager, Inorganic Chemistry: Jim Dodds

IDEQ - LEWISTON WADE MELTON 1118 F STREET LEWISTON, ID 83501

Tracking Number: 40297-0280/

(Please Refer to this Tracking Number on any communications)

Grant/Project:

8297

NCIRO-Lewiston - RESERVED - NCIRO

Survey Name:

LAPWAI

Storet: NPDES No.:

Sample Location:

LPA-1-1

Collected by:

WADE MELITON

:pose

Other

.ken From:

Unknown - U

Type of Sample:

Composite:

No

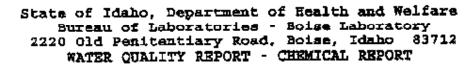
Preservation:

H2SO4, Cooled 4° C

Date Collected: 02/12/97

Date Received in Lab: 02/14/97

STORET TEST PERFORMED	RESULTS	COMPLETED ANST
00630 Total NO2 + NO3 as N	1.75 (mg/l)	02/18/97 BL





LAB: BOISE, Phone: (208) 334-2235

Section Manager, Inorganic Chemistry: Jim Dodds

IDEO - LEWISTON WADE MELTON 1118 F STREET LEWISTON, ID 83501

Tracking Number: 40297-0281/

(Please Refer to this Tracking Number on any communications)

Grant/Project:

8297

NCIRO-Lewiston - RESERVED - NCIRO

Survey Name:

LAPWAI

Storet:

NPDES No.:

Sample Location: LPR-1-1

lected by:

WADE MELTON

.urpose:

Other

Taken From:

Unknown - U

Type of Sample:

Composite:

No

Preservation. H2804, Cooled 4° C

Date Collected: 02/12/97

Date Received in Lab: 02/14/97

STORET TEST PERFORMED	PESULTS	COMPLETED ANST
D0630 Total NO2 + NO3 as N	1.55 (mg/l)	02/18/97 BL

Leb Number

97-78

Date Analyzed

03/10/97 GC/MS

Analyst

M. Sevier

Sample ID

Lewiston Leves Landfill Well #1 LCTL-1-2

Method 525.2 or 625 or 6270

COMPOUND	UG/L OR	MDL IN
COMPCORD	UG/KG	WATER
	-	Q_IL
Accesptatores		0:11
Accompanies Accompanies		0.14
Aldrin	<u>j</u>	0.11
Ametryn	- 1 - 1 - 1	0.09
Anthrope	··· · · · · · · ·	4.67
Aireton	· † · · · · · ·	0.16
Антиро	i) "	0.04
Borrey electrocure	Ų.	0.20
Beezo(b) Sporgothere		0.30
Benan(x)Decreeding	1	9.54
المساوي والمنافع المسا		G/05
Bernar(4)197400	- U	0:10
Beramoil	- 1	10.10 10.00
Betackler	- ŭ -	0,06
Boaylese	╼╫╼	0.25
Buty I begray I pintonisto Carboxan		1.40
S-C Significan	i	0.12
R-Chlordam	 	5 D.11
I-Nometion	- 1 - 5 -	0.22
Chlorusb	_ U	0.09
Chlorocomiete	17	1.30
2-Colorologoasyl	U	0.00
Caloropeophera	บ	0.11
Characyridas (Duraguard)	U .	0.04
Chlerostoni	, u	0.12
Сътупнос		B0.D
Сучения	0	0.17
Cyclosts	U U	0.90 0.09
DCFA		0.07
4,4°-0005	- ° -	9.08 **
		0.08
8,4'-DDT Discords	-1 - 5 -	" 0.tt
Dihamia, b)satura over		0.01
E-o-Proyi contrain		N.D.
2.3-Dionierospiesovi	- 0	₹ ,14 "
Dinkorece	- i	0.13
Delice	- 1	1808
rin (2-ethy-linny) (actipans	U U	0.09
Jensyl-eurythen ystydubalste		KD'
Distalys phahalase	. 0	3.17
Dimethyl philale	- U	0.06
2,4-Dimitrosoftiens		0.16
2,6 Dinitrotolumes	U	0.16
Diphonacial	Ū	0.04
Distriction.	" 0	0.62
Distriction of the same	-	9,20
OpenHotes walkington	- 'č	0,30
Epidomistro I.	- l - ŏ -	3.44
Endosurian si Endosurian solivia	- i -	0.13
Parious Inches	 i - i	0.29
	 	0.19
himina aldebade		
innerm aldeleydd		. a.r.
GPTC	<u> </u>	O.11
GPTC		
EPTC.	9	ND

20.1 21.7

60.1

СОМВОЙМО	UG/L OR UG/KG	MOL IN WATER
	· · · · · · · · · · · · · · · · · · ·	0.11
projection (Control of Control of		0.16
-miles	 	0.95
serind		5,20
CONTRACT CON	U	0.0€
heridas-	- 0	0.55
ВНС	- 1 '0 '	0.23
anc		0.31
anc		0.73
BHC (Links)	- i	0.15
DIT- (Lossey		0.15
epietikor	- '0	0.06
Synathior approximately (2,1,1,1,4,4,4,5-Expandiscrobiprosty)	1 0	9.11
en acidorotura en	. U	0.13
2' 4.4' 3.6' Histochlorobijestije		0.11
personal property of the second	· · · · · ·	0.07
or a second	T T	0,11
dental (2.3-e,d)pyrone	- <u> </u>	0.08
		0.04
roptorers	- 1 0 -	0.08
Modernoe		0.17
Vedayi pumasoo.		15,760
Aourisans.	U	0.16
West page		120
MGK 284 - diamer s	: 0 "	0.64
	U	0.02
AGK 264 - Gener b	- 1	5309
Molianto .	——————————————————————————————————————	0.06
Маркоршей ла	- i - i	0.13
Sortenese		0,73
2,7° 3,3° ,4,5° ,6,6° -Ogsacrik accijemeny		B.08
		0.15
2,2',3',4,6-Peeachlorobipnein-i	 	ND
		0,03
ess-Pannethein.	- 1 - 1	12.0
	- 1 - 0 -	0.06
Pjepershoose	j	0.38
Prompton	- i - i -	3.DE
Promociays	- l · i · 	5.10
Prinamide		0.11
de company de la		<u>₩.12</u> ···
Propusing		0.07
Pyrene		0,13
Samerine		0.13
Seretrye		0.13
Stirofce		280
I produce to	 	210
Terteci		0,10
Terbalos	<u> </u>	0.10
Carbatron	<u> </u>	0.11
2.2.4.4 Teimeblerobipmenel	- 1	0.33
Trademoken	- j-	3,09
2,4,5-1 ricialorotriposoyi		2.60
neyalsaola		
Tribunia	U	0,10
Vernolete		0.08
Pyrodrins (Pyrellin)	U U	ַ בוא
Respons (Pyrellin)		, ND
Mentaryi (Saidan)		ЙĎ
Patriment Ar experiences		

URROGATES	

Phonestheory - d10

Chryscos - 412

Porvisos - d12

Supervisor

Persona Solide

S/A

Lab Number

97-78

Date Analyzed

03/10/97 GC/MS M. Sevier

Analyst Sample ID

Lewiston Leves Landfill Well #4 LLL-Y-4

Method 525.2 or 625 or 8270

COMPOUND	UCVL OR	MDLIN
	UG/KG	WATER
Version and the second		0.11
Accompanies and	1 0	0.11
de relati	1 1	a iš
ULT	п	DATE
usicaryts		100
Valencese	U	Δ07
Menten	l l	0.16
urzina	<u></u>	0.08
Approximately account	- · · · · · · · · · · · · · · · · · · ·	(TXI
Screen by Proceembors	ų,	<u>4.30</u>
Secretal Properties	١	
Service h Bourview	Ţ,	0,05
Венжо(д)румия	Ü	1110
Aprimai.	0	11.16
inachior		0.09
Lucy Name	V	11.05
luty,farmayi phalminto	. 0	0.28
Surbania:	jυ	1.40
-Chlordage	ן ט	0.12
-Chicatiano	LI .	0.11
-Normables	The second second	0.22 0.00
hloende	· · ·	1.30
Chlorobrazilate		1.34
2-Calorobipmay	Ū	0.07
(Moray-copiness	Ç	0.04
Scorpyriges (Charageaus)		
depolerii	U	0.12 0.08
Сигунски		0.08
Сумпетіне) U	
Cyclome DCFA	<u> </u>	0.70 4.89
(A-DDD	- i	8,07
44-DDE	 ∤ ∵ÿ	0.00
4-DDE	- t ŭ	0.08
Perturan	- ŭ	0.00
Deboraria, Estindormoneo	- U	0.01
A-p-Brayl parameter	 	ND
2,1-Dichloroblehousyl	- 1 - ŏ	0.14
Distaktivos	 1 - 1	3.13
Dis Home	1 1	0.05
his (2-ethy henry Hadipus		0.09
bis(2-sthythamy);philmiate		ND
Dicary philade	- † 	337
Directly I definite	·· i	0.06
1 Chairmontum	ij	0.10
L 6-Dissilication was	j	10.56
Distriction was	- 1 5	0.04
Davisooo	 j	0.62
Devilored		3,07
Distriction authorida		5,20
Endoulin i	· 	V.30
landoretha II	Ŭ	0.44
Indontal sulface	- ŭ -	0.10
Endra.	` `` ``	0.29
Endem skolydo	- i - ŏ	0.19
EPTC	- 1	0.11
	 	ND ND
Piperakin (Piperas		80
Diseasobles (Pennsy) Beomosynal	 t t	ND
Acephile (Orthice)	· + č -	ND

COMPOUND	UG/LOR UG/KG	MDL IN WATER
Виориор		0.11
tridianole		G19
	- V	6.95
crandol	V	1.20
projection	<u> </u>	6,06
larisces .	V	0.35
RIC	<u>1</u>	0.20
BRC	1 0 .	0.33
SHC	ı ı	Q.21
(HC (Linkes)	" U	0.13
implactator	U	0.[3
Epitablior aposida		" 0.06
3,3,4,4,6Heptackprotections		0.13
an action of the control of		0.13
, 2, 4, 4, 3, ≰ -Hexachlocorichary		0.01
incacialmenty violentalisms:		0.07
SORATIONS		
раста (1, 2, 3-с, 2) руман	· 0	0.06
roboro	- 11 0	0.04
Sections	י ט	0.08
folky) pursosos	U	0.17
Audurbure		0.09
A or calculate.	0	0.16
Anvingina		7.20
AGK 264 - ivageer a		3.04
KGK 264 - martier b		0.03
Vollosse	J	0.09
Napropumide	U .	90,0
Orthogram	. U	0,13
2',3,3',4,2',6,6'-Deuchlorobiphers	<u>- 1</u>	0.13
		0.08
2'-3'-4-6-Posssehiozobiphony	17	0.15
Parasakan parasai	Ų .	ND
Pormothern.	,	0.03
nor-Percettria		0.07
Torrest terms	9	0.06
round Co.	1 0	0.24
TORRESTY IS	Ū	13.08
Promernide	<u> </u>	. 0.10
Proporbler	T'' U'	Q.11
Peopezine	· - U	0.12
Pysons	<u> </u>	0.07
8	<u></u>	0.13
Simultyn		D-13
Starofor		D-13
obustinurus		720
Terbacil		7,10
Carbulas	υ	3.10
Tentanityo.	T T	11.11
2,2',4.6'-Teurschloeologes-y-	Ų	0.04
l'eindernation	Ü	0,33
2, 4.5-7 yezh kerezintkizi) i	· · · · ·	0.02
Тукусалою	U	2.60
Initialis	ı u	0.10
Vennoleits	<u> </u>	0.08
Pyrothytes (Pyrothes)	i i	90
Roemon (Pyredia)	 i	ND
Monalacyl (Substan)		ND
I TOTAL PARTIES		
Formations (Refrigiés)	···· 1 	ND

SUNUROGATES	
А мперіонн - 410	1.62 1.02
Ph romothrops - 490	13.5
Clayteen - d12	85.9
Porylono - d12	/)/ / π3
	1// 50 -
Supervisor	Ch Freeze

-teneni Solids

_____Oate___3://: 97

N/A



BUREAU OF LABORATORIES

2220 Old Penitentlery Ro. Boise, Idaho 63712 (205) 334-2235

UNDA L CABALLEÃO Diado BICHARD H. SCHULTZ

ORGANIC CHEMISTRY REPORT VOLATILE ORGANIC COMPOUNDS - METHOD 8021

Log No.: 97-74 Sample: WATER Analyst: W. BAKER

Date Analyzed: 3/9/87 ___ Date Reported: 3/10/97 ___

Date Analyzed	J. <u>314</u>		1,2-Dichloropropane (U) 1,2-Dichloropropane (U) 2,2-Dichloropropane (U) 1,1-Dichloropropane (U) cis-1,3-Dichloropropane (U) trans-1,3-Dichloropropane (U) trans-1,3-Dichloropropane (U)				
ANALYTE		SULTS	;	ANALYTE			
1_	, 4	n 77777	3	1,2-Dichloropropane	(U)
Веливле	ì	IJ	}	1,3-Dichioropropane	(_	}
Bromobenzene	ì	Ü	1	2,2-Dichioropropane	(บ	}
Bromochloromethane	`	บ	,		(U)
Bromodichloromethane	,	Ü	ì	• • •	(Ü)
Bromoform	`	Ü	,	•	(u)
Bromomethane	,	บ	,		(U	}
n-Butylbenzene		Ü	,	Hexachlorobutadiene	ţ	U	}
ic-Butylbenzene	,	u	(Isopropylbenzens	{	U	}
tert-Butylbenzene	,	_	,	p-isopropyltoluene	(U)
Carbon tetrachloride	(U	1	Methylene chloride	t	U	}
Chlorobenzene	(U	}	Nephthalena	i	Ū)
Chloroethane		-	,	n-Propylbenzene	(U)
Chioroform		U	1	Styrene	(Ų.)
Chloromethane	(u	ļ	1,1,1,2-Tetrachloroethane	í	u	·)
2-Chiorotoluene	(U	!	1,1,2,2-Tetrachioroethane	ì	Ū	j
4-Chiorotoluene	(U	}	Tetrachloroethens	;	ŭ	1
Dibromochloromethane	(น	}		ì	ŭ	í
1,2-Dibromo-3-chloropropane	(U)	Taluene 1,2,3-Trichlarabenzene	ì	บ	í
1,2-Dibromoethane	` (Ų	}		ì	u	í
_ Dibromomethane	(U)	1,2,4-Trichlorobenzene		Ü	1
1,2 Dichlorobenzene	(Ų	1	1,1,1-Trichiorethane	,	ü	,
1,3-Dichlorobenzene	(U)	1,1,2-Trichloroethene	`;	บ	,
■ 1,4-Dichlorobenzene	. (Ų)	Trichloroethene	•	Ú	1
Dichlorodifluoromethane	(U	}	Trichlorofluoromethane	1	_	'
1.1-Dichloroethane	ţ	Ų	}	1,2,3-Trichloropropane		U	,
1,2-Dichloroethane	(U	}	1,2,4-Trimethylbenzene	(U	}
1,1-Dichloroethane	(U	}	i ,3,5-Trimethylbenzena	(u	,
■ pis-1,2-Dichloroethene	(U)	Vinyl chloride	(U	
trans-1,2-Dichioroethene	- (Ų)	Xylenes (total)	(Ü	}

All analytical results less than the Minimum Reportable Limit (MRL) will be reported as U. The MRL is highly matrix-dependent and can range from approximately 0.5-10 ug/l or higher.

Lab Number

87-75

Date Analyzed Analyst

03/10/97 GC/MS M. Sevier

Sample ID

Lewiston Leves Landiii LLL-1-3

Method 525.2 or 625 or 8270

Method 525.2 or 625 or 8270		
COMPOUND	UG/L OR	MOLIN
	UG/KG	WATER
Accreptations		0.11
Access childrens	U	0.11
	v.	0.10
Aldra	П.	0.11
Amount		0.07
Adamson	- 	0.14
Atretan	- 1	0.02
Bross (a) seal process	 i 	0.24
Benzally (I) physical bears	<u> </u>	0_30
(Heresofk)(harranthine	"U	0.54
Delico J.A. Openy St.		9,08
Besstoja jojema	G	0.10
Seemed		0.08
Busider	-1 i	0.06
Dutylese	- - 0	1.25
Prinytheury) phikaliste Carbonin	- 1 - 5	1,40
a-Chlorians		0.12
p-Chicolant		0.15
s Prasarables	11	5.22
Chloroph	U	0,09
Calcroboundes	IJ	1.30
2-Chlorotipumy	Ü	0.09
Caloreprophers		70.11
Chloryetics (Dungtard)	- č	0.12
Chloritaioni	- i - i -	0,09
Chrystens Cymretins	· · · · · · · ·	0.17
Cyclose	0 '	0,30
DCPA	- · <u>u </u>	0.00
4.A'-DDD		0.07
#4-ppe		30.0
4,4'-001'		071
Designo		0.51
Di bassi (a, la kundara como:	· · · · · · · · · · · ·	ND
di-e-Baty) philalate	Ť	0.14
Schlorus	- 1 	0.15
Dickling	-	0.60
ou (2 othylhexy) adipate	. 0	0.09
bas Leeby herryi) philipshino	U	ND
District philades	· ·	0.17
Demoktyk piskalise	_ <u>_</u> _ <u>_</u> _	0,06
2,4Dmirmoheno	<u> </u>	0.10
2,6 Dimitrosope	U	0.16
Dispersional		0.62
Distribution statement	· · · · · ·	0.07
Disafforon rulloude		0.20
bedorules (- บ	0,30
Ensough a d	10	78.44
Executio coline	U	0.13
Larking .		0.29
Endris sideliyde	U	0.19
EYR	Ų	0.11
Pipernia (Payras)	0	ND ND
Openstate (Course)	1 1	ND ND
Винакупі	- 1 - 0 - -	ND
Aceptate (Ostante)		1

COMPOUND	UG/L OR	MDL IN
	UGAKG	WATER
(Aleque)	T' II	. WII
Linkingole	1 " 1 1	D,16
Promotyler	, V	0.04
- AMAZEMBI		1.30
		0.00
Plandone	·· · · · · · · · · · · · · · · · · · ·	0.30
- BHC	 	0.31
- FHC	· · · · ·	0.21
p-BAC (Linden)	0	0.15
Hispanisher		- 0.15
Barramilas aprovida		0.06
2.1 3.3 4.4 .6 Hyperical concentratory		0.11
Householenbestette		\(\frac{\pi_13}{\pi_1}\)
12".4.4" 3.6" He is coloron phony!	- i - i	0.07
Hannahlanoyatapanhlana	·	0.11
Harrison A.S. a.d pyrous	ù	0.26
perphorus	 	0.04
Mochanychioe		0.58
Mathel persona	· U	0.17
Metriadakor	U	0.07
Metrifydia	U U	0,36
Merriana	- 6	324
SACES, 264 - menter à MARIA 264 - menter b	· 0	0.83
Miliana Moliman	u u	- 1009
Naperparrile	· · · · · · ·	11.06
Northeappe	- <u> </u>	, u;13
2,2',2',4,5',6,6'-2-cachdurobionenyl Pobulata		1,0
		6.04
1,2°,5°,4,6-Parauchlorobiphamyi		- 0.13 - ND
Pennachkonophurok		0.03
cia-Permedera.	 	0.07
Paravilarias	 	0.06
Руску		0.38
Procestyte	u	0,82
Profession	j · <u>Ú</u>	F10
Trapediae		6.11
Properties		0J2 0J07
Руни	<u> </u>	0.15
Samuelation	 	0.13
Streetes	 	4773
Teophiano	- 1	200
Tertend	- 1 	2.10
Terbuko	- Ü	G.10
Control Spin	U	811
4.4 Terrechlorophymenyt	- 0	0.04
Triederoelon		0.33
2,4,5-1 richlendaritem	<u>U</u>	2.80
i neycligais	 ŏ	0.10
i nikowen Vorgolsko	 i - i -	0.08
Pyrothese (Pyroifie)	- 1 - i -	" ND
Research (Pyrellin)	- 1 	, KD
Marajaryi (Suhrha)	0	ND
Francisco (Religios)		ИÐ

NJA

SURROGATES		Personal Studieds
Accesphilians - 410	40.9	
Propushano - diū	79,7	
Coyena - 412	121	
Perdica - d12	7 1 2 7 2 2	
Supervisor_	A De La Dat	5 :11-97

Lab Number

97-76

03/10/97 GC/MS

Date Analyzes Analyst

M. Seviet

Sample ID

McCann and EKO walls MCC-1-3

Method 525.2 or 625 or 8270

Method 525.2 or 625 or 8270		
COMPOUND	UG/EG	WATER
		0.11
Acceptions Acceptably have		6,11
Accomplainten	 	0,16
Alida	- i - i	0,11
Amelya	_ † 	10,000
Authorite		0.07
Atretos		0.16
Avenue		0.20
Bogstjá jazzkenomo	<u> </u>	0.30
Henzolb)(Ivernathons	- 1 - 1 - 1	0,54
	- 1 -	0305
Bernot g.a., i potylena Bernota jpyrena	U	0.23
Secreta	Ü	0.10
District Control of the Control of t	. 0	0.00
Registr	, ų	0,68
Racylhencyl probatos		1.40
Caromia	- 0	0,12
e-Colordana	 	0.11
E-A Spicespier		0.22
Calored	0	0.09
Chioropapainis	ับ	1.30
2-Courtemport	. 0	0.09
Chloroprophers	0	0.11
Chicopyrates (Deseguard)		0.12
Chiechalom		1 0.01
Chrysono	 	0.17
Cyanesia Cyclesia	5	0.10
DCPA		0.09
4,7-000	· · · · ·	0,07
4,4'-DDE		- 100 - 1
(,2'-DD)		0.37
Designan	- + ŏ -	0.01
Discourse Abandonecous	- i	ND
Li-e-Buryl pinketio	- U	0.14
Distance or	i ii	0,15
Dicidrio	- "	0.09
bad a wiley heavy indignate	U U	- ND
ola (2-alleytin-ryl) phohainte		0.17
Djethyl přebálem		0.06
Disputity pinhalata	 । ।	0.10
2.4-Dayur-cookurus 2.5-Divarrosokurus	-	0,16
Diphonamid	- 	0.04
Pienifetes	· · · · · ·	0.82
Distriction stations	<u> </u>	6.20
Dinatición suifexida	1 U	330
Egylenullán I	 	- 6,44
Endomina 0	- - i	0.13
Engles wifes willete	- 	0,29
Ledrin	 	0.19
Entrin skinbyto	<u></u>	0.11
Processis (Pieses)	· · · · · · · · · · · · · · · · · · ·	ИD
Discoction (Protect)		<u> </u>
Bromoxymi		ND ND
Acceptante (Orthografi		30

COMPOUND	UG/L OR UG/KG	MDL IN WATER
		-
моргор	0	0.11
Training Co.	- 0	- 6.08
manaphot	- 	1,35
merian)		0.56
Decision of the last of the la		0.33
handste	- i - i	0.20
SHC	- + + + -	0.31
-BHC		0.21
BHC		0.15
BHC (Limited)		<u>d.72</u>
warder		6.06
2° 3,3° 4, 6° 33 special orobipheres	- 1 	0.11
7, 73, 4, 4, 0 Haptacatorooipnensi		0.13
march consessor	- 	0.11
2',4,4',5,6'-Houseklorstopts-ry		0.07
lorsical organization and a second a second and a second		ŭn.
Emprimero		0.06
manus I a de algorese		0.04
picphis Park	_ + · · i ·	COS
Methacychior		0.17
Hothyd parameter		0.09
Meschanica		0.16
Metribusia.		0.20
Kovimbor	- 	0.04
MOK 264 - accept a	 	0.08
MGK 264 - witter b	_ 	6709.
Malinia		0.04
Napropalatio		0.17
Noglameton	 	6.15
2 3 43 6.6 Conchinemplenyl	_ 	0.04
Projection		0.15
1,2',4,6-Parasohloecespr.ams	 	ND
Parasolatorotybonol	- 0 -	0.03
og-Permodern	· · · · · · · · · · · · · · · · · · ·	0.07
rus Permitin		0.06
- Contractive of the Contractive	 	0.38
Promises		5,08
Prometry	·· ·	0.10
Promotide	`	8.11
Proportion	. V.	0,12
Properties		6.07
Ручна		0.13
Segrecate	ù	6,13
Sphottyn	 	0.13
Aureite	- 1	1.10
[chulment		2.10
Inter-		. D.10
Tertralia		0.11
(Strange Stra	.	0,04
1,2',4,4'-1 strechlorobiphawii	- 1	0.33
nademator.	 	0.08
L. L.S. Tyrchlorobipheny	- + + + + + + + + + + + + + + + + + + +	1 260
Trioycolodo		D.10
College land	· 	0.04
Vergolese		ND
Pyrothems (Pyrollei)		- NO
Remote (Pytellin)		ND
Alambaya (Carles)		
		NO

NAM

			Person Scholls
SURROGATES	43.4		
Accephibers - d10 Promotives - d10	5 0		
Chrysons - d12	58.2		
Perylana - dl2	(7)		
	11: Beron	Date	3-11-77
Supervisor	Ch V I		

Lab Number

97-77

Data Analyzed

03/10/97 GC/MS

Anelyst

M. Sevier

Sample ID

Lewiston Leves Landfill Well #1 LCWW-1-2

Method 525.2 or 625 or 8270

COMPOUND	UGAL OR UGAKG	MOL IN WATER
		0.1)
corespicitions.	 	0.11
ochaphaby lesso	· · · · · ·	0.15
Wite	- 	0.11
	- 	0.09
	 1 	0.07
thricone.	· 	0.16
EVERUE .	· • • • • •	3.56
United to the same of the same		0.20
475. (p) <u>14. 14. 14. 14. 14. 14. 14. 14. 14. 14. </u>		0.30
esso(b)flucessebess	. 0	0.34
era o (k) that reput house	Ų	0.04
leggid (g., h, i)percy legs		0.13
colo (s) yyrini	. 0	
	П	0.10
Assoblor	<u> </u>	. 0'08
ary lates	-	0.08
hay been y I photo links	· u	0.25
		1.40
A PORTEE	- - 	0.12
Coloration	 	0.11
-Caloresee		0.22
- North Control	- 	0.09
house	 1 i i	1,30
Approximate to	· 	0.09
-Chlorolaphanyi		
hice-conspinus		0.11
Marpyrilas (Dangassi)	י י	.0.31
horhaloni	0 .	3.11
Mayour-		9,09
- Interest - Interest		0,17
- yaşık kilik	- 1	6.10
DCFA	- 1	0.09
4,4-000	 	0.07
4,41-000	11	90.00
I, r-dde	- 	0.08
C4-DDT	 	0.11
Disamo		3.01
Dibourte, b) and bracers		ND -
di-o-Buryl phinesis		
2. 3-Dychoromycanyl	, v	0,14
Diabloces	U	0.15
Dialdrin .		0.63
-abythony judipees		1.00
on (2-othyllawy) lyddalaita	 	ИD
Linetary philipsisms	- 1 0 - 1	D.17
		0,06
Dimetry philade	- +	3,16
1.4 Disturbiologica	- 	37.0
2.6 Operconsum		0.74
Decorate		0,62
Distributes	- U	0,62
Disultains malout		0.20
Dinastoro siaferida	UU	
Endewolfen i	- {' u	0.30
Ensembles II		0.44
Endownish sulfide	- · · · · · · ·	0.13
		9.29
Endra	- - i -	0.19
Endre vilabyte	 † 	0.17
EPIC		ND.
Proceedins (Proposed	Ū.	· ND
Nenotsky (Petitle)	- 1	ND ND
Втотпите		
Acceptant (Orthron)		ND

Montesep Unidence la Companyation Companyation	UG/KG U	WATER 0.11
hopes Urdinosh Specialists Specialists		
Unitionals Commission Contragol Contragol		
contraction of the contraction o	п.	0.16
biorana		0.93
	0	1.20
	,	0.06
) of Come	U	0.30
RUE		0.30
янс	- 1 - 2 -	0.31
BRC	-1-5-	0.15
BIFC (Lindens)		0.13
aprairities		9.08
2.3.3 A.4 & Herocklombine in	<u></u>	071
in the part of the	T U	0.13
2",4,4",5,6"-Hersebloro ' (********)	U U	oli O
machine of doctors and a		0.07
	U	0.11
olesc (1,2,3-e,4)pyrms	U	0.06
0,000		0.04
Astlessychite		0.04
(aday) paracasas		0,17
		0,15
(futuration		0.20
Movimulus		10,54
2GK, 264 - momen *		6,00
VGK 264 - minter 6	 	5.09
Malinete	- · · Ū	0,06
Northernous	· · · · · · · · · · · · · · · · · · ·	0.13
1.1.3.4.3.4.6.Ostachararchiptere 1	- 0"	0.13
Aphilato		1 1
2.2.3", 4.6 Perturbiant promit	. 1	0.15
Pautach (concerno).	U	0.03 0.00
- Province	- 8	0,07
Control Parished Barton		0.06
Parameter Section 1	 	0.38
Truckette.	_ 	100
Topposyp		4770
Promotine	- i · -	0.11
Properties		0.12
Румпе	ų į	0.07
Series Se	· · ·	0.13
Simulayo		0.13
Starofon	Ū.	<u> </u>
Chubiana	, U	2.90
Terbed	0	110
Terbalos	. 0	0.10
Laranya	. 1	0.11
12' 4,4'-Terrechorosphinor		0.33
rindemotes.		5.08
1,4.5 Tradiscobiotocyl		1.60
Troychrolo		0.10
I reflection		0.00
Verpoisso		- ND
Pyroderine (Pyrodin)	 	ND.
Romanas (Pyredin) Rienteryl (Schilup)	- 1 · 5 ·	ND
MANUSCHOT LOUISING	·· 1	- ND

UKROGATES		
corephthem - d]0		11.4
mantens - d)Û		37.7
hrywene - 412		67.4
myseur-diz		98. 1
MANAGE - GILL	1717	

_____Date____3.//-9.7__

N/A

Supervisor W Bare

Dypoint Solids