



STATE OF IDAHO  
DEPARTMENT OF  
ENVIRONMENTAL QUALITY

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444 Hospital Way #300 • Pocatello, Idaho 83201 • (208) 236-6160

Dirk Kempthorne, Governor  
C. Stephen Allred, Director

Wade Chapman, General Manager \_\_\_\_\_ Friday, January 21, 2004  
Idaho Supreme Potatoes  
PO Box 246  
Firth, ID 83236

**RE: WLAP #LA-000033-02 - Idaho Supreme Potatoes, Inc. –Facility Inspection Report FY2004**

Dear Mr. Chapman

As you are aware, on September 30, 2003, the Idaho Department of Environmental Quality (DEQ) conducted an inspection of the wastewater-land application system in use by the Idaho Supreme Potatoes, Inc.. We want to express our appreciation for the cooperation and assistance demonstrated by your staff during the inspection and interview. Your willingness to answer our questions provided valuable insights as to the operation and management of the treatment system.

The following list summarizes items discussed during the inspection:

1. Ground water monitoring well #7 was found to be unlocked and the cap ajar. The pump had been pulled and was lying on the ground next to the well casing. Gil Dayley indicated they had been having problems with the wells filling with sand and were going to have to do something to fix it. He indicated the groundwater monitoring evaluation plan that had been submitted to the agency included issues with this well.
1. All of the fields were planted with grass; grass is green-chopped and used as cattle feed. The hot summer weather had stressed the grass and the overall appearance of the grass crop was fair to poor.
2. The buffer zone trees along the Snake River had recently been under attack by beavers and Mr. Dayley indicated they had installed a hot wire line near ground level to try to prevent further damage to the poplar trees.
3. The facility had installed piping manifolds off several groundwater-monitoring wells for drip irrigation of the poplar trees. The well tops were open and the area around the wells indicated excessive foot and small vehicle traffic activity. It was observed that this practice potentially allows the introduction of contaminants into the monitoring well and should be avoided. *Ground water monitoring wells should be reserved for their intended purpose.*

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4. The field receiving wastewater at the time of the inspection was field # 4. The processing plant was having some flow and pressure problems at the time of the inspection and irrigation flows were irregular and below normal pressures. All of the fields appeared to have uniform grass growth and there was no evidence of any low spots or standing water issues.
5. The facility is using a proprietary system (Bioxide®) to help control H<sub>2</sub>S formation. The main transfer line is a relatively new HDPE line. They pig the transfer line when needed and with the use of Bioxide and self-draining lines, odor control seems under control. They have received two odor complaints in 2003. One complaint was forwarded from the agency after it received a call and the other complaint was from a nearby resident. Both were investigated and neither had a specific cause for the complaint.

After the tour of the fields, a tour of the plant wastewater processing area was taken. This included a tour of the clarifier, the centrifuge to remove solids from clarifier underflow and the plant laboratory.

After returning to the offices, Mr. Dayley indicated the new data management system is up and running.

A discussion was held on the issues in the consent order regarding the COD/TKN issue. Mr. Dayley went over his position on using the COD/TKN ratio for determining the nitrogen loading to the fields.

- They are currently running a daily TKN sample in their lab and are continuing to work on demonstrating why their approach to a ratio based COD/TKN should be acceptable to the agency for determining the nitrogen loading. Mr. Dayley did indicate the additional testing for Total nitrogen adds additional costs and there are additional disposal issues with the spent analysis solutions.
- It did appear Mr. Dayley was attempting to use a concentration and flow based calculation for determining the constituent loading to the fields.

When asked about the long-range plans for how do deal with the issues of land application and for meeting the permit conditions, he indicated it would most likely be a combination of engineering solutions and land area expansion. It was understood that no definitive solution has been reached and the company was still reviewing the entire issue.

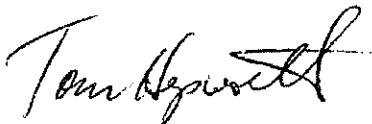
The inspection concluded at 4:15 p.m.

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Sincerely,

A handwritten signature in black ink, appearing to read "Tom Hepworth". The signature is fluid and cursive, with the first name "Tom" being more prominent.

Tom Hepworth, Senior Water Quality Analyst

Attachment: WLAP #LA-000033-02; Facility Inspection Report

CC. Rick Huddleston, Wastewater Program Manager, State Office

Route: John Kirkpatrick, Engineering Manager, Pocatello Regional Office

File: WLAP file: #LA-000033-02, 2.1.5

Wastewater Land Application Program  
Facility Inspection & Site Review Form  
Department of Environmental Quality



Pocatello Regional Office

**Inspection Date:** ..... September 30, 2003

**Facility Inspected:** Idaho Supreme Potatoes, Inc. #LA-000033-02

**Regional Office:** .....Pocatello Regional Office

**Facility Location:**..... Firth, Idaho

**Mailing Address:**Idaho Supreme Potatoes, PO Box 246, Firth, ID

**Phone and Fax:** ..... 346-6841

**Facility Contact Name:** .....McKay Anderson

**E-mail Address:** .....

**Time on Site:** .....9:00AM

**Time off Site:** .....4:30PM

**DEQ Staff Present:**Mike Spomer, Discipline Lead, Enforcement Support Section

**Facility Staff Present:**Gil Dayley, McKay Anderson

**Permit Issuance Date:**..... May 4, 2000

**Permit Expiration Date:** ..... May 4, 2005

**Date of last inspection:** .....

**Inspection:** Announced ☒ Unannounced ☐

**Additional Comments:** .....

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FACILITY INSPECTION REPORT  
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**WASTEWATER LAND APPLICATION PERMIT QUESTIONNAIRE**

1. Confirm that all Facility information is still correct. (i.e. schedule B of permits)
  - New facility contact person will be McKay Anderson. Gil Dayley, Technical Service Manager, is planning to retire by end of 2003.
2. What is type of wastewater being applied?
  - Potato processing wastewater
3. Are the latest characteristics of the wastewater still as described in the application?
  - Due to improved water management efforts, the plant has reduced water flows from an average 1.2MG per day to about 750,000 gal/day. The constituent concentrations have gone up but the total loadings are about the same to the land application areas.
4. What is the mode of irrigation at this facility?
  - Center pivots on all fields with spray headers.
5. What is area of wastewater application? (Breakdown by fields or lots and attach a site map).
  - See reference map for field's layout in current permit. All 13 permitted fields are being used. Acreage is approximately 322 irrigated acres.
6. Are non-permitted sites utilized for land application?
  - All areas that receive wastewater are included in the permit.
7. Non-Growing Season (NGS) application allowed? If so, were application rates within permitting limits.
  - Wastewater is applied in the NGS. A review of the records for the period November 1, 2002 through March 31, 2003 indicate the application rate was below the 18 inches/ac permit limit for all 13 fields.
8. Were growing season (GS) application rates within permit limits?
  - Yes, a review of graphed results of the actual verse calculated amounts, showed all were below limits. Calculated amounts were based on EP - P.
  - Data used in the calculations were from the Aberdeen meteorological station and the use of the "Alfm" crop data.
9. What was total amount of wastewater land applied for the year? Is this amount within permit limits?

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- Year-to-date information reviewed indicates the total amount of wastewater applied is below permit limits.
10. Is there evidence of discharge to surface water or runoff from the permitted site?
- No, a tour of all fields did not show any obvious problems.
11. Does the land application site show evidence of hydraulic overloading?
- No, a tour of all fields did not show any obvious problems.
  - The hot summer weather did have some impact on crop growth, but there were no signs of the fields being impacted from the wastewater applications.
12. Does the facility graze animals? If so, does the facility have a DEQ approved grazing management plan?
- NA
13. Is there evidence to show compaction by grazing animals of the land application site? How many animals are grazed and when?
- NA
14. Has ground water quality been impacted by the land application practice?
- A DEQ generated report showing exceedances of the (secondary) maximum contaminant level (SMCL) for the period from November 1, 2001 and October 31, 2002 is attached. The report is arranged by gradient position and by ground water constituent.
15. Are pretreatment performance measures being met for TSS and BOD? ( for municipal facilities only)
- N/A
16. Is COD loading rate within permitting limits? ( 50 lbs./ac/day seasonal loading rate)
- No, facility issued a letter on August 4, 2003 to the agency indicating the facility exceeded COD loading limits on several fields and may exceed the Nitrogen loading limit on several fields by years end. The data was submitted with the notification letter. Further regulatory actions are under review.
17. Is loading rate for Nitrogen within permit limits? (150% of typical crop uptake)
- No, see Question # 16.
18. Is loading rate for Phosphorus within permit limits?

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- No phosphorus loading limits are included in current permit.
19. Loading rate for TDS (or NVDS/TDIS)?
- Not included in current permit.
20. Have construction plans been submitted to DEQ for new WLAP facilities?
- Yes, new monitoring well plan has been submitted to the agency and is under review.
21. Is the wastewater treatment system operated under the supervision of a certified operator? What level of certification does the operator possess?
- No, operators are not certified. Training is basic 'on-the-job' in the operations of the plant equipment and process.
22. Does it appear that there are adequate personnel currently employed to manage the land application operation?
- Yes, staffing appears adequate.
  - They currently have 3 plant operators, 2 field operators, 1 Technical person and 1 Manager. The facility is trying to hire a fourth operator, and until that position is filled, others are covering the work.

| Name            | Title                | Responsibility         | Percent Time |
|-----------------|----------------------|------------------------|--------------|
| Mckay Anderson  | Environmental Tech   | Technical oversight    | 100%         |
| Charlie Chapman | Waste App Supervisor | Oversees land app area | 100%         |

23. Is sludge or solid waste being applied or managed in accordance with the approved sludge or solid waste management plan(s)?
- Yes, solids are sent as cattle feed. The rocks and heavy solids that are removed in the process are placed on one field and the fines or silt are placed on another section of the field. The fine soil after degrading is reused as soil fill when possible.
24. Are the primary waste treatment facilities in good repair?

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- Overall, everything appeared to be in good repair. There was a leak in the main discharge pipe inside the plant area that was temporally patched until repairs could be made.
25. Are treatment and storage lagoons maintained and operational?
- Facility does not use storage or treatment lagoons.
26. Are water/wastewater conveyance structures maintained and operational?
- Yes, the main wastewater line to the application fields is a relative new HDPE pipeline. All other piping and valves boxes appeared to be properly maintained.
27. Is irrigation and other equipment winterized? (for systems that operate in the NGS)
- System operates in the winter.
28. Is their even distribution of water/wastewater during winter applications?
- Not able to determine during this inspection.
29. Are crops being harvested from the land application fields? If so, what types of crops are grown? What are typical crop yields?
- Grass is grown and harvested. They have tried other crops, but have not produced good crop yields. They do collect crop tissue data but have not begun the review of the data since they plan to try to get one more cutting before winter. This information will be included in the annual report.
30. Are the land application buffer zone requirements being adhered too? Wellhead distances, public accesses, and inhabited dwellings?
- Yes, a complete tour of the perimeter roads was taken and all buffer zones were acceptable.
31. Have there been any odor complaints at the facility within the past year? If so, what was the cause? How was the complaint resolved?
- Yes, the facility provided the logbook of complaints. They received two complaints so far in 2003. One was from feed back from the agency dated June 24-26, 2003 and the other from a local resident on July 24, 2003.
  - Both had onsite surveys done by operating staff and neither incident located any sources. The plant replaced the resident's swamp cooler with an air conditioner and has not had any further complaints.

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32. Has an Odor management plan been submitted to the DEQ? Is the wastewater treatment plant and land application being operated so as not to create a public health hazard or nuisance condition including odors?
- Odor management plan has been submitted to agency and is currently under review. In addition the facility adds Bioxide to the clarifier overflow and this has been effective in helping to control odors.
33. Have proper fencing and signage been installed around the Wastewater treatment plant and the land application site?
- All gates to application area were locked and had "no trespassing" signs.
- Does the Operating and Maintenance Manual address proper sample collection methods, analytical methods and QA/QC procedures?
- The O & M Plan is currently under review by agency and was not reviewed during the inspection.
34. Is the facility sampling and monitoring according to the permit?
- Yes, they are doing their required monthly sampling of the wastewater as well as daily sampling for their operating control monitoring.
35. Is the sampling equipment operative?
- The plant takes manual grab samples for wastewater sampling.
36. Have the soils sample composites been collected according to permit conditions? Who conducts soil sampling?
- Yes, they use Western Farm Services and have collected the March 2003 samples and have requested bids to collect the next round of samples in October 2003. This data will be in the annual report submittal.
37. Have the wastewater sample composites been collected according to permit conditions? Who conducts wastewater sampling?
- Yes, the operators collect the samples and they use the Hach testing methods in a small lab on site to test daily samples for operational control. They use Analytical Laboratories for the monthly testing required by the permit.
38. Have the plant tissue samples been collected according to permit conditions? Who conducts plant tissue sampling?
- Yes, the samples have been collected and are tested by an off site lab.

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39. Have the lysimeter samples been collected according to permit conditions? Who conducts lysimeter sampling?

- No lysimeter are in use. The facility is testing and gathering data on soil moisture using data loggers. This information will be used in the ground water monitoring evaluation plan.

40. Who performs the chemical analytical work required by the permit?

- They have an on site lab that uses the Hach test methods for most tests. They are using the approved methods and do compare to standards to check calibration of test equipment.
- They send in monthly wastewater samples to Analytical Labs for the analysis required by the permit.

41. Have the ground water monitoring wells been sampled according to permit conditions (purge of 3 well casing volumes or stabilized water quality (pH, conductivity) prior to obtaining the sample? Who conducts the ground water sampling?

- Although no sampling was physically observed, sampling procedures were discussed with facility staff. Standard field parameter stabilization procedures are used. They have sample bottles shipped in from Analytical Labs. After collection, the samples are sent back to Analytical Labs for testing.

42. Does monitoring data indicate exceedance of any water quality parameters? If so, what parameters.

- Groundwater data were not reviewed during the inspection, but the facility indicated results for Mn and Fe were general above the standard. Unfiltered results were normally below standard. All primary constituents are within specification. This information will be available in the annual report.
- See item 14.

43. Do monitoring wells appear to be in good condition (from visual inspection)? How many monitoring wells are employed?

- There are 15 groundwater-monitoring wells. The majority of the wells appeared to have locked caps and surrounding areas appeared to be maintained. Well #7 was inspected and found open and the pump was lying on the ground. The facility indicated they were having trouble with this well filling with sand and needed to decide what to do with it.

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- Several wells (4 or 5) had been piped up to provide water to the buffer zone trees. The well caps were open and the area around the well indicated frequent foot and vehicle traffic.
44. Have all monitor parameters (flow rates, analytical tests etc) been collected and recorded at the required frequencies?
- Yes, all the plant operating data appears to be collected and analyzed as required. With respect to ground water monitoring, the March and July data has been collected and they are due to sample in November.
45. What flow metering or other measuring devices are used? What do the devices measure? When was the equipment last calibrated?
- The main line from the plant to the fields has a magnetic flow meter on it.
  - The supplemental irrigation water has pressure differential flow monitors, but the facility indicated they have had some problems with them recording a true flow.
46. Has the permittee met the required Compliance Activity Completion Dates as listed in the permit? List each Compliance Activity and current status.
- The facility has submitted all required documents and the agency is currently reviewing them.
47. Have annual reports been submitted to the DEQ in the required timeframe and with the required information? Who prepared them?
- Yes, and they are aware of the January 31 submittal deadline. Gil Dayley, Technical Manager, prepared the 2002 report.
48. Did the permittee comply with all Standard Permit Conditions for Procedures and Reporting? Note any exceptions. (Schedule H)
- Yes
49. Did the permittee comply with all Standard Permit Conditions for Modifications, Violations and Revocations? Note any exceptions. (Schedule I)
- Yes
50. Did the permittee provide access to DEQ personnel according to permit conditions?
- Yes