

T a m e r l a n e

V E N T U R E S I N C . 

7-27-07

Joel M. Holder
Environmental Assessment Analyst
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Department of Environment and Natural Resources
Government of the Northwest Territories
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Joel,

Thanks for the information and recommendations you forwarded to me, Tamerlane intends to utilize these recommendations during operations. In the sections on Waste Oils, Hazardous Waste and Reclamation, you brought up several questions that are addressed below:

Waste Oils:

Question: ENR requests that Tamerlane provide the company specifications for the oil heaters they expect to be used.

Response:



Waste Oil Fired Equipment

Industry's ONLY Non-Carboning Oil Preheater block with Solid State circuit board controller. These items precisely control the oil and air temperatures to insure stable viscosity for optimum control of the flame resulting in a thorough burn. Heater block never carbons or needs to be removed for cleaning. Industry normal annual parts kit not needed with Omni's system! Readjustment of electrodes and nozzle replacement every 5 years is all that is needed due to erosion only.

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Omni is the only waste oil burner manufacturer who can say without equivocation it's oil preheater block absolutely will not carbon the oil internally due to its patented design. Therefore, the industry normal removal of carbon in the preheater block is not necessary. This design ensures that OMNI customers will never need to remove the burner for periodic carbon cleaning!

There are many who have easy access to their oil preheater block, but cleaning the hard lava-like carbon is not an easy task! Others request the entire burner be serviced at least annually. Part of that service is flushing their oil preheater block of carbon buildup. Some must do this more than others, as frequently as twice a season.

Fully cleaning and removing carbon is a difficult chore. Even after cleaning, carbon chunk particles can remain. Shortly after service, they can plug the oil nozzle, shutting the unit down. This causes a lot of down time and repeat service, not experienced with OMNI units.

Additionally, some manufacturers request their customers shut the unit down during the summer months to eliminate the carboning process. This is not necessary if the heater block assembly is an OMNI system. Just leave your unit on and it will automatically start by the thermostat when heat is needed. Omni burners do not need to be torn apart to access the heater block for cleaning. These are a few of the operating procedures COMPETITORS believe are standard; NOT WITH OMNI!

We offer four models of OMNI's heaters:



[OWH-150](#)

[OWH-250](#)

[OWH-350](#)

[OWH-500](#)

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Omni's Patented Flame Control System



Designed and constructed waste oil burning equipment that reached a level of performance the industry considers unattainable!

Our patented complete waste oil burning system with a universal burner mounting flange allows easy retrofit of our burner system to various configuration and sizes of combustion chambers. Initial flame adjustment is all that is needed with complete control thereafter.

System Benefits

- Non-carboning oil heater block - cleaning not required
- A thorough burn - greatly reducing ash deposit accumulation
- Only system that can burn straight 90 weight oils
- Less stress on metals - can't overfire. No target burn-out
- Clean heater once a season under normal conditions
- The most reliable, consistent operation
- Greater efficiency



Variably controlled, A/C converted, D/C gear motor driven waste oil pump

This Remote flow control pump supplies the exact gallons of oil per hour to each waste oil burning appliance and has the ability to control flame even when various viscosities are used - furnace or stove oil to 90 weight straight - flame remains stable. This rotary style gear waste oil pump is to be located at oil supply tank and is capable of pushing 100's of feet to the used oil firing unit. Other features include:

- Oil Primer Switch
- Inline Breaker
- Oil Pressure Gauge - Bench mark indicator for proper flame length adjustment and filter pump screen or valve cleaning requirements.
- Cleanable Strainer Oil Filter - removal of one nut for screen access.
- Oil Shut-Off Valve - eliminates start delays due to possible drain back
- Adjustable Motor Speed - initial set-up only - once set, no adjustment needed thereafter



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Patented Oil Preheater & Controller

Continues the stabilization of the waste oil viscosity by holding oil and air temperatures that pass through it exact. Resulting in the most thorough and complete burn. OIL HEATER BLOCK WILL NOT BUILD UP

CARBON INSIDE ITS OIL PASSAGES!

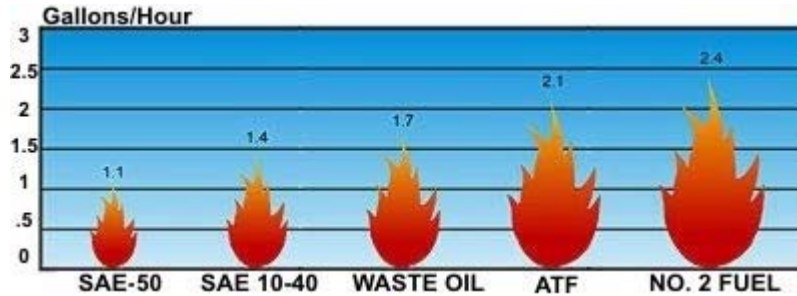


Crimped Heat Exchangers

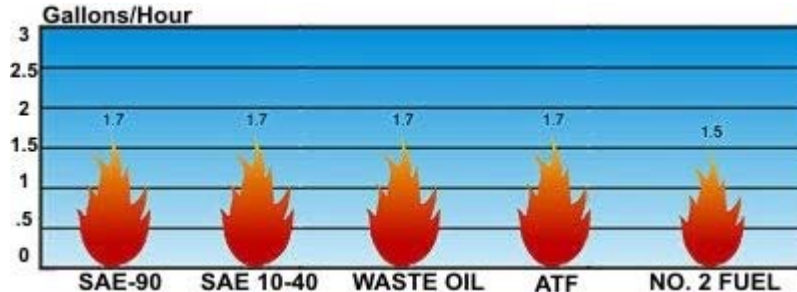
The seam construction eliminates the possibility of stress cracks when welded due to a heat effected zone. This can occur if overheated when flue gas passages may become blocked if not cleaned periodically or insufficient draft was present caused by inaccurate installation.

These charts demonstrate the efficiency and consistency of the Flame Control System

Other Waste Oil Burners:



Omni Waste Oil Burners with Flame Control:



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Easy Maintenance When Needed

Large lift out cabinet door (150/250/350/500 models) and a hinged end plate cover opening (250/350/500 models) makes for easy access to combustion chamber & heater exchangers for occasional vacuuming of ash deposit accumulation. Under normal operating conditions, seasonal cleaning is required. Some oils require only once a year cleaning.

Swing out burner door, no fuel or air lines to disconnect. Removal of one nut and electrical safety plug allows easy access to flame end cone and nozzle for quick service. Our on-burner air compressor eliminates overnight risk to your shop compressor. Hinged Cover opening provides quick access to heater block and circuit board if needed.







Easy Access Circuit Board & Heater Block

Maintenance Free On-Burner Air Compressor

Easy Access Combustion Chamber

All Models Come Standard With These Items and Features for Never Seen Before Performance, Ease of Operation and Service

Models				
	OWH-150	OWH-250	OWH-350	OWH-500
BTU/HR Input	150,000	250,000	350,000	500,000
BTU/HR Output	120,000	215,000	300,000	410,000
Gallons per Hour	1.00	1.75	2.4	3.4
Voltage Requirements	115	115	115	115
Amps, Full Load	12.5	13.5	16.6	18.6
Fan Motor HP	1/4	1/3	2@1/4 ea	2@1/3 ea
Fan Motor RPM	1,075	1,075	1,075	1,075
Fan Diameter/Pitch	18/36	24/18	18/36	24/18
CFM (Free Air)	3,762	4,466	6,275	9,001
CFM w/ Ductwork	380	2000	1600	3701

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Effective Air Flow	50 ft	60 ft	70 ft	100 ft
Flue Size	8"	8"	8"	8"
Weight with Burner	240 lbs	365 lbs	565 lbs	660 lbs
Shipping Weight	375 lbs	535 lbs	600 lbs	725 lbs
Dimensions (LxWxH)	44" x 22" x 25.5"	44" x 30" x 28.5"	54" x 29.5" x 28.5"	72" x 38" x 34.5"
Shipping Dimensions	64.5" x 30" x 49"	64.5" x 39" x 49"	76" x 38" x 49"	92" x 44" x 50"

Hazardous Waste:

Question: ENR recommends that the proponent demonstrate that they have the approval of the owner/operator of the proposed disposal facility, that the facility is itself approved for the disposal of such wastes. And if the facility is municipally owned/operated, that the municipality has the authorities in place to accept wastes from outside its municipal boundaries.

Response: Please see the below response received on July 27, 2007 in email form to Tamerlane:

Please be advised that the Town of Hay River accepts waste originating outside of the municipal boundary including hazardous wastes such as propane tanks, batteries, paints, solvents, glycol, petroleum products, pesticides and corrosive substances and we are agreeable to enter into an agreement with Tamerlane to accept waste generated from the proposed Pine Point operation.

Terry Molenkamp

Senior Administrative Officer
 Town of Hay River
 73 Woodland Drive
 Hay River, NT X0E 1G1
 Phone: 867-874-6522
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Reclamation:

Question: What kind of re-vegetation is proposed?

Response: Tamerlane's primary reclamation scenario is to return affected areas to states compatible with the original environmental conditions that existed prior to the development of the PPPP. Additionally, as indicated in pages 414 and 415 of the DAR and as stated during the technical sessions, July 17th, 2007, Tamerlane will be scarifying and planting Jack Pine seedlings during reclamation activities. This is consistent with recommendations by Mr. Robert Decker, Forest Ecologist, Forest Resources, Department of Environment and Natural Resources, as outlined on page 415 of the DAR.

Question: Will there be monitoring or 'checking up' on whether or not growth is progressing as planned?

Response: Yes, as outlined in Section 9.6, Post Closure Monitoring, of the DAR.

Thank you,

David Swisher
Vice President
Tamerlane Ventures Inc.

From: David Swisher [dswisher@tamerlaneventures.com]
Sent: August 2, 2007 3:24 PM
To: Tawanis Testart
Subject: FW: Additional ENR comments Concerning Tamerlane

Attachments: ENR requests 7-27-07.doc

From: David Swisher [mailto:dswisher@tamerlaneventures.com]
Sent: Friday, July 27, 2007 5:09 PM
To: Alistair MacDonald
Cc: Rick Hoos (RHoos@eba.ca)
Subject: FW: Additional ENR comments Concerning Tamerlane

Al,

Please see attached.

Thanks,

David Swisher

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Fax: 360.332.4652
Cell: 360.927.6103
dswisher@tamerlaneventures.com

From: David Swisher [mailto:dswisher@tamerlaneventures.com]
Sent: Friday, July 27, 2007 12:53 PM
To: 'Joel Holder'
Cc: 'Steven Matthews'; 'Sarah True'; 'Rafe Smith'; 'Erika Nyssonen'; David Swisher; Rick Hoos
Subject: RE: Additional ENR comments Concerning Tamerlane

Joel,

Please see the attached responses to your letter sent July 9th.

Have a good weekend,

David Swisher

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dswisher@tamerlaneventures.com

From: Joel Holder [mailto:Joel_Holder@gov.nt.ca]
Sent: Monday, July 09, 2007 10:39 AM
To: dswisher@tamerlaneventures.com
Cc: Steven Matthews; Sarah True; Rafe Smith; Erika Nyyssonen
Subject: Additional ENR comments Concerning Tamerlane

David,

I want to give you advanced notice of some of the ENR comments or concerns prior to the second round of IRs so that you might have additional time to prepare your responses. These comments were prepared prior to the Technical Meeting Questionnaire and although we believe them to be important some of them did not meet the technical questionnaire criteria. We will be submitting IRs in the next round, along with possible others, that would help clarify or satisfy our concerns for the following.

Environmental Protection

Waste Oils

ENR identified concerns with statements made in the Developers Assessment Report (DAR), which addressed the disposal of waste oils and hazardous materials. Page 418 of the DAR states that “waste oils will be shipped off site or burned or destroyed on site and unused chemicals as well as any other hazardous waste material will be either treated on site or shipped off site for disposal”.

In a June 19, 2007 response letter, Tamerlane responded to ENR concerns by indicating that used oils will be burned in an approved used oil heater. ENR would like to make note that an approved used oil heater is an incinerator that has been approved by the

Canadian Standards Association of the Underwriters' Laboratories of Canada for the incineration of used oil and waste fuel. ENR requests that Tamerlane provide the company specifications for the oil heaters they expect to be using.

The proponent is referred to the *Used Oil and Waste Fuel Management Regulations*, found at the following, website:

http://www.enr.gov.nt.ca/eps/pdf/oilwastefuel_nov03.pdf.

The regulations require that the following information be filed with the Chief Environmental Protection Officer:

- Persons who wish to blend, incinerate or re-process used oil must register their facility with the Chief EPO, in accordance with Schedule B of the regulations. They must also keep accurate records of their activities.

- Persons who wish to incinerate waste-derived fuel must register their facility with the Chief EPO in accordance with Schedule B of the regulations and must keep accurate records of their activities.

- Persons who wish to incinerate waste fuel must provide 14 days advance notice to the Chief EPO.

- Persons who wish to incinerate used oil or waste derived fuel must have a representative sample of one month's feedstock analyzed at least once a year to ensure that it does not contain levels of impurities. These include cadmium, chromium, lead, total organic halogens (such as chlorine compounds), PCBs and ash content. Impurities must not be in excess of those set out in Schedule A of the regulations.

A burning plan for the mine site will be also be required. The plan should include the equipment being used in the process, along with a clearer definition of what they consider combustible and hazardous waste.

Hazardous Waste

In the June 19, 2007 response letter, Tamerlane also addresses the issue of hazardous waste indicating that the only anticipated hazardous waste will be from used batteries. However, ENR considers the following wastes produced as a result of industrial operations *Industrial Hazardous Waste* - included but not limited to: paints; used

sorbents; any oily waste, including oily rags; and equipment servicing wastes such as used engine oil, antifreeze, hydraulic oil, lead acid batteries, brake fluid and other lubricants, or filters used for lube oil, glycol, or fuel/gas filters.

As indicated in Tamerlane's June 19, 2007 response letter, hazardous waste (ex. batteries) will be shipped to Hay River. The disposal of wastes at an off-site facility or location could result in the violation of the accepting facility's license conditions. ENR recommends that the proponent demonstrate that they have the approval of the owner/operator of the proposed disposal facility, that the facility is itself approved for the disposal of such wastes. And if the facility is municipally owned/operated, that the municipality has the authorities in place to accept wastes from outside its municipal boundaries.

The Environmental Guideline for the General Management of Hazardous Waste can be found at the following website for further information:

<http://www.enr.gov.nt.ca/library/pdf/eps/genmgmthazardouswaste.pdf>

Reclamation

The last efforts used southern grass mixtures that did not fare well. ENR sees no mention of replacing the original Jack Pine Forests. Scarification and the spread of Jack Pine seed at appropriate times might be suitable. What kind of re-vegetation is proposed? Will there be monitoring or 'checking up' on whether or not growth is progressing as planned? (pg. 415 DAR)

Wildlife

Species at Risk

This is already covered in our comments submitted by Anne Wilson (EC) after our July 5th video conference with you and Rick.

Carnivores

Improper food and waste storage, handling and disposal can lead to the attraction and subsequent habituation of bears and other carnivores. ENR's Food and Waste Management Guidelines should be implemented to ensure carnivores do not become habituated and eventually require relocation or destruction. It is prohibited in the Wildlife Act to store food and food waste in a manner that might attract wildlife.

The NWT Mine Health and Safety Regulations (s. 15.05) require that all field personnel involved in mineral exploration undertake bear-safety training. ENR staff supports this requirement, as it is both a worker safety and wildlife issue. If all field workers have bear safety training and learn how to react to bears, this will decrease the cases of bear attacks and the number of bears destroyed as nuisance wildlife. This training is also important because it will inform employees and owners on proper bear proofing methods for camps.

In the event that a bear is disturbed and/or encountered during project operations, information on the sighting should be forwarded to the local Renewable Resource Officer at the earliest opportunity. This will allow the Department a greater ability to relocate bears that frequent areas of development before they become habituated and must be destroyed as nuisance wildlife.

ENR would also like the proponent to consult with local elders and active harvesters familiar with the area on the location of berry patches in the development area.

If a bear is encountered during operations, response should be in accordance with ENR's Bear Response Guidelines and a Renewable Resource Officer should be notified. Any defense of life and property (DLP) kills must be reported ASAP. Since all human caused mortalities are accounted for under the quota any DLP kills will result in a reduction of the community quota.

It is recommended that Tamerlane prepare a project-specific bear response plan that can be implemented by Tamerlane's employees.

Raptors

Disturbance of peregrine falcons and short-eared owls while nesting can affect incubation success, survival and/or fitness of the young. Therefore, if a nest site of either species is identified in the project area, a buffer of 1.5 km should be maintained between development activities and the nest site from April 15th to September 15th. Pre-construction surveys for raptor species would determine active nest sites in the project area.

If we can find any early resolution to the above comments we will submit the outcomes to MVEIRB to be posted on the public registry.

Have a good day.

Joel M. Holder

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