

October 28, 2002

Alberta Energy and Utilities Board  
640 - 5th Avenue S.W.  
Calgary, Alberta T2P 3G4

Attention: Neil McCrank, Chairman, EUB

Re: The Manhattan Project

Application No. 1250463 – LSD 07-16-53-21 W4M  
1250462 – LSD 07-20-53-21 W4M  
1260253 – LSD 10-21-53-21 W4M  
1260250 - LSD 07-22-53-21 W4M  
1269744 – LSD 06-06-53-21 W4M  
1260257 – LSD 07-30-52-21 W4M  
Facility Expansion at LSD 07-29-53-21 W4M

Dear Mr. McCrank:

My wife and I live on a 39 acre hobby farm at 4-21-53-20-SW\_. Our property is immediately adjacent to and usually downwind from Manhattan Resources Ltd. Application No. 1250462 - LSD 07-20-53-21 W4M, a proposed sour gas well, separator building, chemical tanks, flare stack and pipeline. We object to this well and associated development along with the remaining five wells and proposed facilities expansion at 07-29-53-21 W4M.

We request that the Alberta Energy and Utilities Board:

- 1.) deny approval for this application,
- 2.) a) postpone any further prehearings or hearings on this application until water well contamination near Manhattan's existing sour gas well at 07-29-53-21 W4M can be fully investigated (see details under Manhattan Resources Ltd.'s Track Record below),  
b) postpone any further prehearings or hearings on this application until the EUB can review and act on the recently completed EUB-ordered consultant's report on the health effect of exposure to hydrogen sulphide and sulphur dioxide. (EUB Public Safety and Sour Gas Annual Review – April 2002, pg. 16), and
- 3.) hold any further prehearings or hearings on this application in the evening so that all residents affected can participate in the process. 250 to 300 people attended both the EUB meeting and the Manhattan town hall meeting which were held in the evenings recently.

We make these requests on the basis of medical, economic, and community planning concerns including Manhattan Resource's poor safety and community relations performance. In support of our objection, we have coordinated expert opinions in lung health, neurotoxicology, regional disaster management, community planning, real estate assessment, petroleum engineering, land owners' legal advocacy and media relations.

Our concerns are as follows:

**Medical:** As a subspecialist in internal, respiratory, and critical care medicine with additional sleep medicine and research training it is my professional opinion that the proposed project poses the following unnecessary threats to life and health:

***1. the highly probable inability of Manhattan Resources, other company, or local area emergency services to respond effectively to multiple civilian casualties in our vicinity:*** Manhattan Resources, the EUB, and local officials must consider the increased risk of civilian death and disability from a major accident in the vicinity given:

- a. the close proximity of many resident civilians in an increasingly residential rural community,
- b. the limited number of local ambulances,
- c. only distant heavy fire fighting equipment and experienced heavy fire fighters,
- d. lack of large amounts of nearby accessible water to fight spreading fires given record drought,
- e. rolling and wooded terrain making audible or visual alarms difficult to detect,
- f. Manhattan Resource's 24 hour emergency line, which is not listed in the 2002 Edmonton area telephone directory, and is manned by a commercial answering service that says they have four Calgary-based contacts, which is hardly assurance of a fast or complete response in the case of a life-threatening emergency,
- g. the lack of any nearby facilities capable of sheltering multiple evacuees was also identified as a problem in a previous Barrington/Petrobank proposal,
- h. the limited trauma facilities of the Fort Saskatchewan Hospital many kilometres away, and
- i. the already very limited reserve of even more distant Capital Health Region facilities.

We have consulted with disaster planning, emergency, and critical care authorities in the Capital Health Region who share, and are prepared to publicly support, our serious concerns from both a medical and a disaster management perspective.

To simply dismiss the risk of major accident as remote does not remove any involved party's liability for an increased risk of death, disability, or suffering from a poorly planned misadventure with the potential for devastating consequences in such a populated area.

***2. the increasingly well recognized disease effects of low level hydrogen sulphide exposure from gas operations, particularly on children:***

**a. brain damage:** Given the presence of multiple families with young children, and soon hopefully our own children, in the vicinity, I have grave professional concerns about the ill effects of low level hydrogen sulphide exposure on the brain. Such disease effects have been repeatedly seen in developing animal brain experiments and in a published medical report of a child who developed severe brain damage following chronic low level hydrogen sulphide exposure.

**b. triggering of asthma:** Epidemiological study shows at least 20% of asthmatics may develop symptoms and signs of their potentially fatal or disabling disease in response to low levels of hydrogen sulphide. The prevalence of asthma is known to be increased both in children, and in this region of Alberta where access to asthma care is often difficult and direct patient costs are considerable. Given Ardrossan's location, ambulance dispatch and evacuation times to the Fort Saskatchewan or Edmonton hospitals are unavoidably suboptimal so this project would pose an extraordinary risk to sensitive local asthmatics.

**c. other disease effects:** Low levels of hydrogen sulphide exposure also consistently result in increased findings of headache, nausea, nasal disease, and eye problems. I have monocular vision, have suffered from air pollution-induced iritis, and do not wish to be disabled from providing much needed medical services by the known irritant eye effects of low level hydrogen sulphide. My wife suffers from recurrent bronchitis and low level hydrogen sulphide exposure could well worsen her condition. I cannot medically condone the infliction of these disease effects on my neighbours either.

**3. the dispersion of other known toxins from gas flaring, incineration, venting and accidental leakage:** The production of toxic and very poorly biodegradable aromatic hydrocarbons from gas flaring has been documented in the medical literature. Such toxins and possibly radon have also been reported in incompletely flared, vented, or leaked natural gas. No comprehensive description of how Manhattan Resources would deal with the monitoring, containment, and removal of such toxins in our immediately adjacent rural residential area was found in their information given to us. The dispersion of such long acting toxins onto residential property would be very difficult to justify from a public health perspective.

**4. noise pollution:** It is medically preposterous to imply, as Manhattan Resources does in the information it provided to us, that the noise generated by their project should be acceptable since it will only be of highway traffic level. First, such noise levels are known to cause symptomatic sleep deprivation, physiologic stress reactions in children, and impaired academic performance. Sleep deprivation further impairs driving ability, occupational performance, academic performance, and frequently presents in children with attention deficit hyperactivity syndrome-like symptoms. Our and other adjacent properties also immediately border on a busy highway to Josephburg that is already generating clinically significant noise pollution; the effects of the Manhattan project will be inexcusably additive. There is no mention of protection against the disease effects of noise pollution in the materials we received from Manhattan Resources.

All involved are, no doubt, aware that there are potential criminal, civil, and public relations implications of the above disease effects from sour gas development in a populated residential area.

**Economic:**

The noise, smell, and disease effects from an adjacent sour gas operation will prevent many buyers from considering purchasing properties in our vicinity, thereby compromising property values in the area. Given the noise, smell and disease effects of the Manhattan project we anticipate finding at least part of our rural residential property unusable for normal recreation. We purchased this property last spring specifically in order to own horses and other pets whose loss or injury are not compensable in the same manner as commercial livestock. Manhattan Resources has already indicated that they would not be able to evacuate animals in the event of a problem with their project. We intended to build facilities for horses near the back of our property (including an indoor riding ring, horse barn, and hay storage) near the proposed site of the sour gas well and pipeline. The noise and smell generated by the project could cause the animal's needless suffering or injury. We also intended to drill a well or dig a dugout to provide water for horses and other pets within the next few years. The Manhattan project threatens our intended use of our specifically selected property.

**Community Planning:**

Manhattan Resources refers to the proposed well as a "Fort Saskatchewan" installation in their Resident Information Package. The proposed well is actually in and affecting the smaller Ardrossan area many kilometres away. The Ardrossan area is, according to Strathcona County, identified for residential as opposed to industrial growth. In contrast, Fort Saskatchewan is an already heavily industrialized area and recognized as such in other EUB proceedings.

Our community is also no longer sparsely populated, large scale agricultural land where oil and gas operations can be located well away from habitation or, at worst, in proximity to a few people already using their land in a commercial venture. We are not commercial farmers whose business can be compensated for a remotely placed risk. Instead, we and many neighbouring families have followed regional planning and personal preferences to live in a rural residential setting on hobby farms. There are few alternative residential areas as uniquely positioned and planned as Ardrossan in the Strathcona County or the Edmonton area.

### **Manhattan Resource Ltd.'s Track Record:**

Manhattan Resources have not proven themselves to be a good corporate citizen in the past. First, at Manhattan's town hall meeting a resident provided information, which was not disputed by the company, that since January 2001 five of their facilities have been cited for non-compliance. Two of those were major, Level 3, non-compliance for off-site hydrogen sulphide dispersion at two separate sour gas facilities. The resident stated that, before he obtained the correct information through other sources, the company gave him incorrect information about their record in this regard.

Second, at the same meeting, another resident reported that an independent water quality assessment showed a water well sample near Manhattan's existing well at 07-29-53-21W4M was contaminated by hydrocarbons and hydrogen sulphide. If Manhattan's existing sour gas well is already contaminating groundwater, why should other adjacent residents, land, water, and animals also be jeopardized?

Third, nowhere in our Manhattan Resident's Information Package was the apparently EUB mandated mention of possible penetration of the 0.66% hydrogen sulphide-containing Nisku reservoir. Given this greatly increased concentration of hydrogen sulphide should not a much more critical revision of the Manhattan proposal be demanded?

Fourth, at their own town hall meeting Manhattan executives publicly admitted they have done a poor job notifying the public whose health and land their project endangers. In fact, our first notification of the proposed project was in late September, the week of the first EUB meeting, when we received a flyer from a local resident opposed to the project. The afternoon before the first EUB meeting a representative of Antelope Land Services, contracted by Manhattan Resources, dropped by the house, but was unable to answer many of my wife's specific questions about the project. In subsequent calls made to Jim Besse at Manhattan we were given information that now turns out to be incorrect (e.g., that the company would not flare during drilling. At the town hall meeting they said that they *would* flare or "incinerate" during drilling). During the town hall meeting they failed to provide specific answers to many residents questions and instead offered generalities like "I don't believe there will be long term health effects" (Dave Cymbalisky, VP-Engineering).

Fifth, the long-term viability of Manhattan Resources is in doubt. Their stock value has nearly halved from fifty to twenty-eight cents per share in recent months despite increasing gas prices. Manhattan's 2002 second quarter cash flow was less than \$800 000. Increased risks of bankruptcy, failure to meet ongoing liability insurance premium obligations, abandonment of incomplete facilities, inability to cover clean up costs of suspected ground water contamination from their operating well, and prolonged disruption from delayed construction all pose alarming concern.

Given this poor record, we feel that Manhattan Resources has not earned and does not deserve the trust of the EUB or the local residents whose long term health, and very lives, would be in their hands should this project proceed.

In summary, we oppose these wells and associated development because of their close proximity to homes in this increasingly residential rural area lacking extensive infrastructure to deal with the resulting disease effects, pollution, noise and economic losses.

In summary, we request:

- 1.) that Manhattan Resources' application for gas development on and near 7-20-53-21-4 W4M, the five other associated wells and development, and the facilities expansion at 7-29-53-21W4M be denied.
- 2.) In addition, we ask that the pre-hearing(s) and hearing into this matter be held in the evenings and postponed until:
  - a.) the matter of water well contamination near Manhattan's existing sour gas well at 7-29-53-21 W4M can be investigated further and
  - b.) the EUB and Alberta Health and Wellness have reviewed the recently completed consultant's report on the health effects of hydrogen sulphide and sulphur dioxide. According to the April 2002 EUB Public Safety and Sour Gas Annual Progress Report this review will include revising the health effects tables and subsequently addressing standardized dispersion modelling, emergency planning zones, setbacks and evacuation criteria.

To make a decision affecting such a large number of residents in the absence of such soon to be available information would be morally reprehensible.

Thank you for your consideration in this matter.

Sincerely,

Neil Skjodt, MD, MSc, LMCC, DABIM, FRCPC, FCCP

and Andrea Skjodt

cc: Phyllis Derbyshire, Coordinator, EUB  
Doug Larder, Counsel, EUB  
Mark Lenko, President and CEO, Manhattan Resources  
Dave Cymbalisky, Vice President Engineering, Manhattan Resources  
Norman C. Parsons, Vice President Land, Manhattan Resources  
Kevin Richmond, Vice President Exploration, Manhattan Resources  
Jackie M. Cugnet, Vice President Finance and CFO, Manhattan Resources

Contact [neil\\_skjodt@hotmail.com](mailto:neil_skjodt@hotmail.com)