ALPINE

FAX

Date 3-27-06

Number of pages including cover sheet 3

TO: Scott Schliebe, U.S. Fish and Wildlife
Fax: (907) 786-3816
Steve Amstrup, U.S. Geological Survey
Fax: (907) 786-3816
Dick Shideler, Alaska Dept. of Fish and Game
Fax: (907) 456-3091

FROM: *Shellie Colegrove/*
Jason Cherton
Alpine Development Project.
Mail Drop –ALP 14
P.O. Box 196860
Anchorage, AK 99519
Or Pouch
Phone *(907) 670-4200*
Fax *(907) 670-4507*

CC:

REMARKS: ☐ *Urgent* ☒ *For your review* ☐ *Reply ASAP* ☐ *Please Comment*

Attached are two polar bear observations recently at Alpine.

Sincerely,
Shellie Colegrove
Alpine Environmental Coordinator

United States Department of the Interior

FISH AND WILDLIFE SERVICE
1011 E. Tudor Rd.
Anchorage, Alaska 99503-6199

POLAR BEAR SIGHTING REPORT

Date: 3/24/06

Time: 5:48 PM

Location: River crossing near CO3 - reported as river crossing #5

Observer name: Larry Michaelson

Weather conditions: Fog ___ Snow ___ Rain ___ Clear X Wind Speed 5-10

Wind direction NW Approx. Temp -23 F

Total number of bears: ___ Sow/cubs __/__ Adult ___ Sub adult ___

Estimated distance of bear from personnel/facility: ___/___

Possible attractants present: None - den site / bear

Bear behavior: Curious ___ Aggressive ___ Predatory ___ Other ___

Description of encounter: Reported by construction crew - Not located by security. Aircraft unable to locate

Injuries sustained: None Personnel ___

Polar bears ___

Deterrent used/distance: None Vehicle ___ Noisemaker ___ Firearms ___

Other ___

Duration of encounter: None

Agency/CLIENT Contacts;

USFWS ___ Time: ___ Date: ___

ADF&G ___ Time: ___ Date: ___

CLIENT ___ Time: ___ Date: ___

CLIENT representative: ___ Date: ___

United States Department of the Interior

FISH AND WILDLIFE SERVICE
1011 E. Tudor Rd.
Anchorage, Alaska 99503-6199

POLAR BEAR SIGHTING REPORT

670 4200
Shelly Colgrove

Date: 3-24-06

Time: 1900

Location: CD-3 Pipeline Access Road River crossing #5

Observer name: Tom Falson

Weather conditions: Fog ___ Snow ___ Rain ___ Clear X Wind Speed 5mph

Wind direction SW Approx. Temp -30°F

Total number of bears: X Sow/cubs 2/2 Adult ___ Sub adult ___ 2 COYS

Estimated distance of bear from personnel/facility: 1/4 1 mile

Possible attractants present: N/A

2nd cub popped out this morn

Bear behavior: Curious ___ Aggressive ___ Predatory ___ Other X

Description of encounter: Denning sow hovering around den with small cub. Sow seemed to ignore human activity which was happening approximately 1/4 mile away.

Injuries sustained: Personnel None

Polar bears None

Deterrent used/distance: None Vehicle ___ Noisemaker ___ Firearms ___

Other ___

Duration of encounter: 3/24 - Present

Agency/CLIENT Contacts;

USFWS ___ Time: ___ Date: ___

ADF&G ___ Time: ___ Date: ___

CLIENT ___ Time: ___ Date: ___

CLIENT representative; ___ Date: ___

ALPINE

FAX

Date	3-28-06
Number of pages including cover sheet	2

TO: Scott Schliebe, U.S. Fish and Wildlife
Fax: (907) 786-3816
Steve Amstrup, U.S. Geological Survey
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FROM: *Shellie Colegrove/*
Jason Charton
Alpine Development Project.
Mail Drop –ALP 14
P.O. Box 196660
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Phone *(907) 670-4200*
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CC:

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Attached is one polar bear observations recently at Alpine.

Sincerely,
Shellie Colegrove
Alpine Environmental Coordinator

United States Department of the Interior

FISH AND WILDLIFE SERVICE
1011 E. Tudor Rd.
Anchorage, Alaska 99503-6199

POLAR BEAR SIGHTING REPORT

Date: 27 Mar 06

Time: 0659

Location: Pipe line Road on River Bank Adjacent Bridge site 250-300 yards from N 70°24.496' W 150°52.862'

Observer name: S/O Mark Ouellette

Weather conditions: Fog ____ Snow ____ Rain ____ Clear X Wind Speed 3 MPH

Wind direction South Approx. Temp -24F

Total number of bears: 3 Sow/cubs 1/2 Adult ____ Sub adult ____

Estimated distance of bear from personnel/facility: 400 yards

Possible attractants present: None aware of

Bear behavior: Curious ____ Aggressive ____ Predatory ____ Other X

Description of encounter: Bear came out of Den, See attached Polar Bear Sighting Journal Time line

Injuries sustained: Personnel NONE

Polar bears none

Deterrent used/distance: Vehicle none Noisemaker none Firearms none

Other ____

Duration of encounter: 12 hours and continuing

Agency/CLIENT Contacts:

USFWS _____ Time: ____ Date: ____

ADF&G _____ Time: ____ Date: ____

CLIENT _____ Time: ____ Date: ____

CLIENT representative: _____ Date: ____

ALPINE

FAX

Date 3-29-06

Number of pages including cover sheet 4

TO: Scott Schliebe, U.S. Fish and Wildlife
Fax: (907) 786-3816
Steve Amstrup, U.S. Geological Survey
Fax: (907) 786-3816
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FROM: Shellie Colegrove/
Jason Charton
Alpine Development Project.
Mail Drop –ALP 14
P.O. Box 196860
Anchorage, AK 99519
Or Pouch
Phone (907) 670-4200
Fax (907) 670-4507

CC:

REMARKS: ☐ Urgent ☒ For your review ☐ Reply ASAP ☐ Please Comment

Attached is one polar bear observations recently at Alpine.

Chris Brown -
KSOP - Leonard Lampe / Kupa
→ Chuck Wheat ←

Sincerely,
Shellie Colegrove
Alpine Environmental Coordinator

Mike Leiden
Warren Dobson

United States Department of the Interior

FISH AND WILDLIFE SERVICE
1011 E. Tudor Rd.
Anchorage, Alaska 99503-6199

POLAR BEAR SIGHTING REPORT

Date: 08.28.2006

Time: 0730 - 1230 HOURS

Location: 3/4 MILE 1 1/2 MILES NORTH (TRUE) FROM NORTH END of CD-3 AIRSTRIP

Observer name: DANIEL WEATHERLY

Weather conditions: Fog ____ Snow ____ Rain ____ Clear X Wind Speed SOUTHWEST TO NORTH W/ INVERSION LAYER & FOG TO SOUTH 4 miles per hour

Wind direction SW Approx. Temp -24.6 w/c -40

Total number of bears: 1 Sow/cubs 2/ Adult ____ Sub adult ____

Estimated distance of bear from personnel/facility: 1

Possible attractants present: NONE OBSERVED - SAME BEAR & CUBS UNDER ~~THAT~~ OBSERVATION FOR LAST 2 DAYS

Bear behavior: Curious ____ Aggressive ____ Predatory ____ Other X
APPEARED TO BE NORMAL BEAR BEHAVIOUR. NOT TAKING OFF 2 NEW CUBS

Description of encounter: THIS IS 2ND DAY of OBSERVING SOW & 2 CUBS. BROOD FIRST OBSERVED 0730 HOURS APPRX 3/4 MILE NNE of NORTH END CD-3 RIW. OVER 5 HOUR OF OBSERVATION PERIOD FAMILY MOVED NORTH LAST OBSERVED NORTHBOUND. (SEE ATTACHED OBSERVATION LOG)

Injuries sustained: Personnel NONE

Polar bears NONE

Deterrent used/distance: Vehicle N/A Noisemaker N/A Firearms N/A

Other N/A

Duration of encounter: 5 HOURS

Agency/CLIENT Contacts;

USFWS _____ Time: ____ Date: ____

ADF&G _____ Time: ____ Date: ____

CLIENT _____ Time: ____ Date: ____

CLIENT representative: _____ Date: ____

POLAR BEAR OBSERVATION LOG FOR MARCH 28, 2006

0813- ON LOCATION, NORTH END OF CD-3 AIRSTRIP.

0818- SPOTTED POLAR BEAR 5/8 (ORIGINALLY ESTIMATE AT 1 1/2 MILE NORTH OF AIR-STRIP. BEAR STANDING. BROADSIDE VIEW. TURNING BACK AND FORTH IN APPROXIMATE 20' CIRCLE. WEATHER- SKY CLEAR; INVERSION LAYER FROM SSW TO N TEMP-32 F; WINDCHILL -39; WIND AT 4 MPH FROM THE EAST.

0824- LAID DOWN.

0838- UP AND CIRCLING/BACK AND FORTH IN APPROXIMATE 20' AREA. BEGINS DIGGING WITH BOTH FOREPAWS.

0844- LAYS DOWN AND THEN GETS UP AND DOES CIRCLING/PACING IN APPROXIMATE 20' AREA.

0851- UP AND MOVING N. HAS AT LEAST 1 CUB POSSIBLY 2.

0903- SITS DOWN POSSIBLY NURSING CUB(s).

0917- UP AND MOVING N. 2 CUBS. ONE OFF HER RIGHT REAR FOOT AND ONE TRAILING ABOUT 25' BEHIND.

0920- LAYS DOWN.

0926- UP AND MOVING N. TURNS BROADSIDE LOOKING BACK.

0929- SITTING LOOKING BACK.

0933- "MILLING ABOUT".

0934- MOVING N WITH 2 CUBS.

0936- 2ND SECURITY OFFICER ARRIVES AND CONFIRMS 2 CUBS.

0953- CONTINUING N WITH 2 CUBS.

0958- LAYS DOWN.

1017- UP AND "MILLING ABOUT".

1027- MOVING N.

1035- LAYS DOWN.

1047- UP AND MOVING N.

1120- RADIOED SHELLIE AND & CHUCK. ADVISED MY ORIGINAL DISTANCE WAS OFF. BEAR WAS NOT 1 ¼ MILE FROM END OF AIRPORT. BEAR WAS APPROXIMATLEY 5/8'S MILE DISTANT. BEAR BEGAN WALKING BACK TOWARDS DIRECTION CAME FROM.

1130- STOPS, "MILLS ABOUT", STANDS ON HIND LEGS 3 TIMES.

1139- MOVING N.

1151- LOST SIGHT OF BEAR. EITHER LAID DOWN OR WALKED INTO DEPRESSION OR

BEHIND RISE.

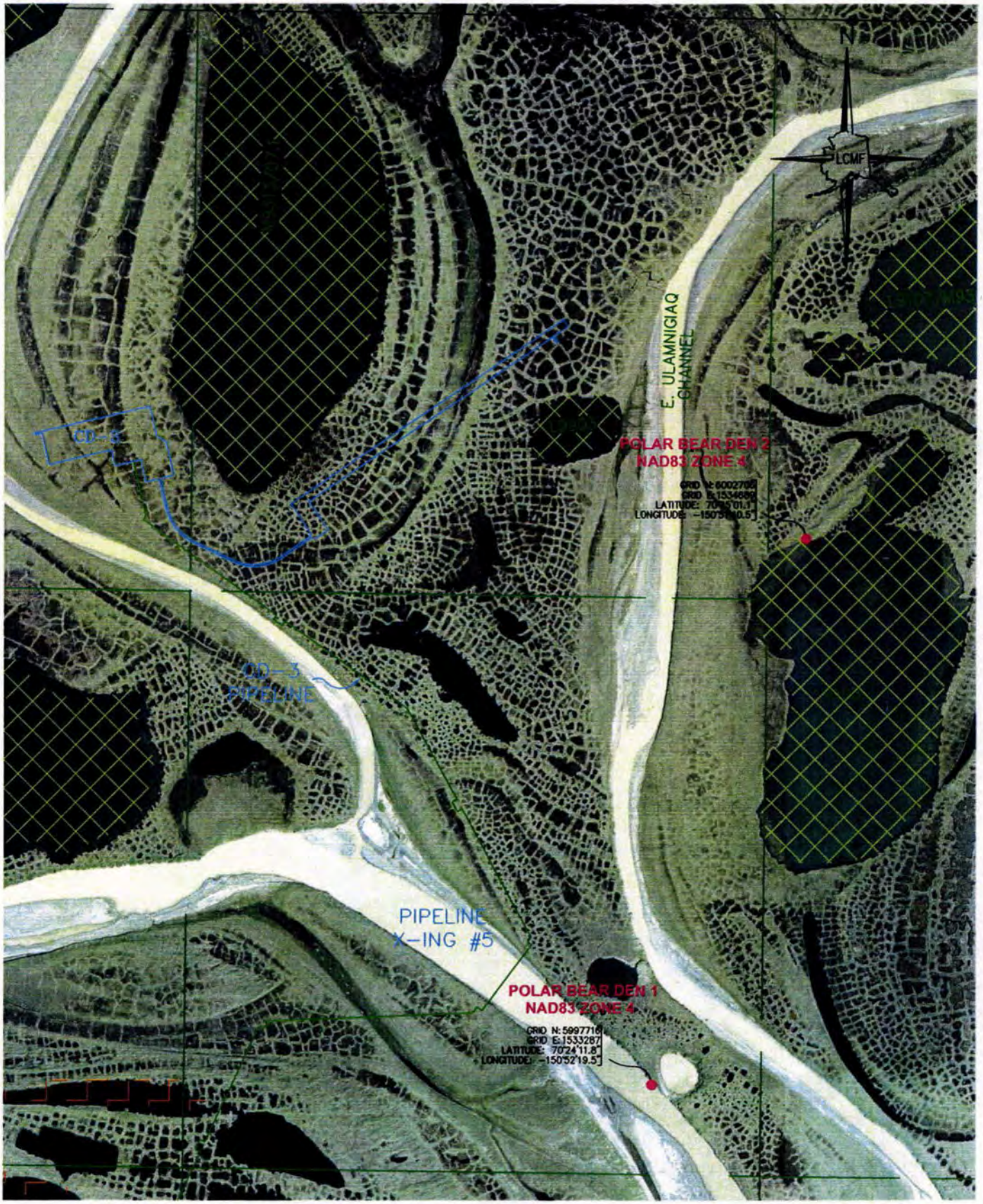
1201- BEAR SIGHTED. MOVING N.

1240- LOST SIGHT OF BEAR.

1308- TELEPHONED SUPERVISOR. HE SUGGESTED PATROLLING AND RETURNING IN IN 1-2 HOURS. SPOKE WITH LCMF SURVEY CREW WORKING ON AIRSTRIP. SAID THEY WOULD CALL SHOULD THEY SEE BEAR. 1319 TOM SCHWANTES-SECURITY ARRIVES PAD 3 AND ASSUMES BEAR WATCH.

1526- ARRIVE PAD 3 AND RELIEVED TOM. STATED HE DID NOT SEE BEAR.

1703- DEPARTED PAD. NO FURTHER SIGHTING OF BEAR AND CUBS.

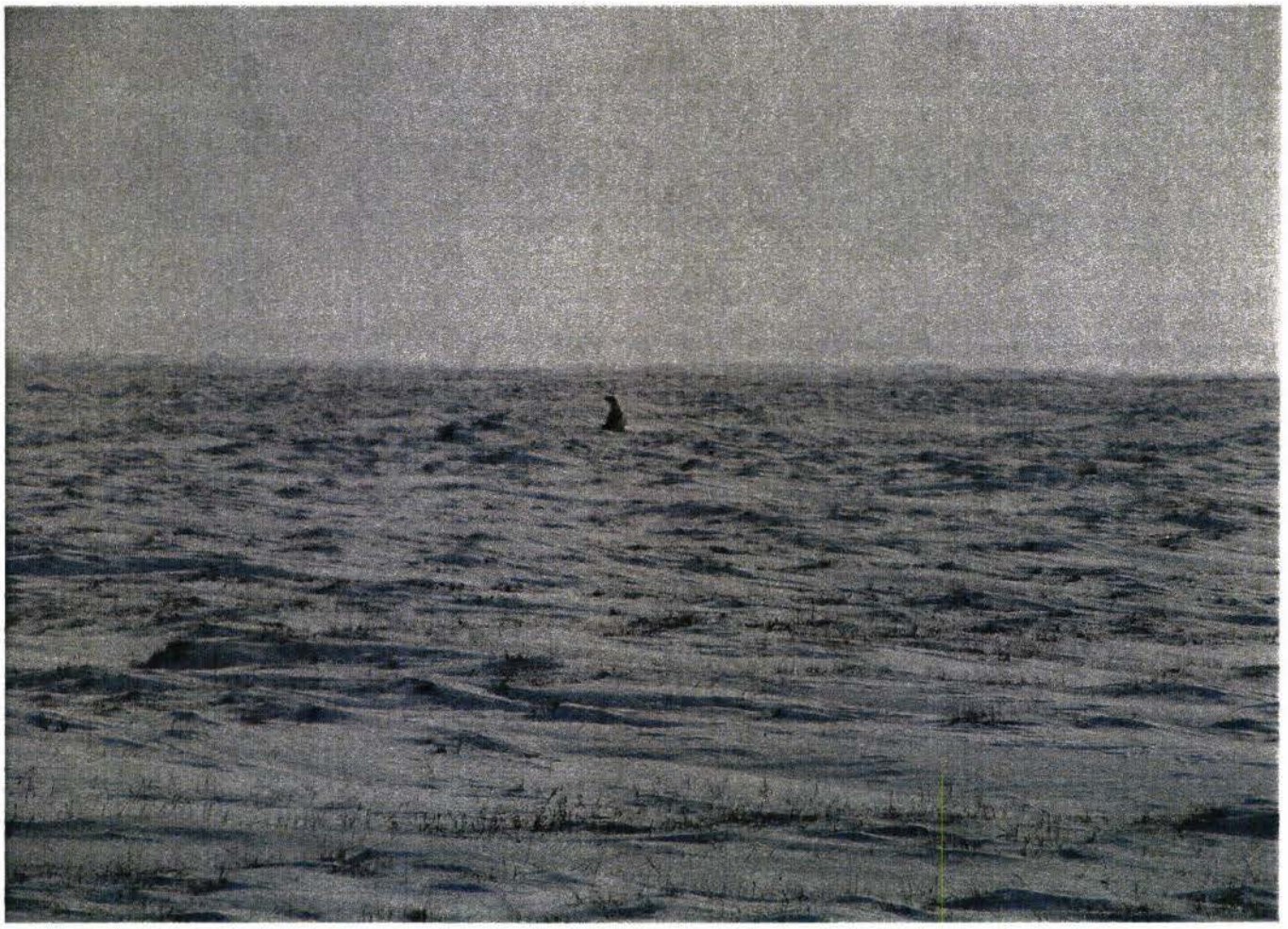


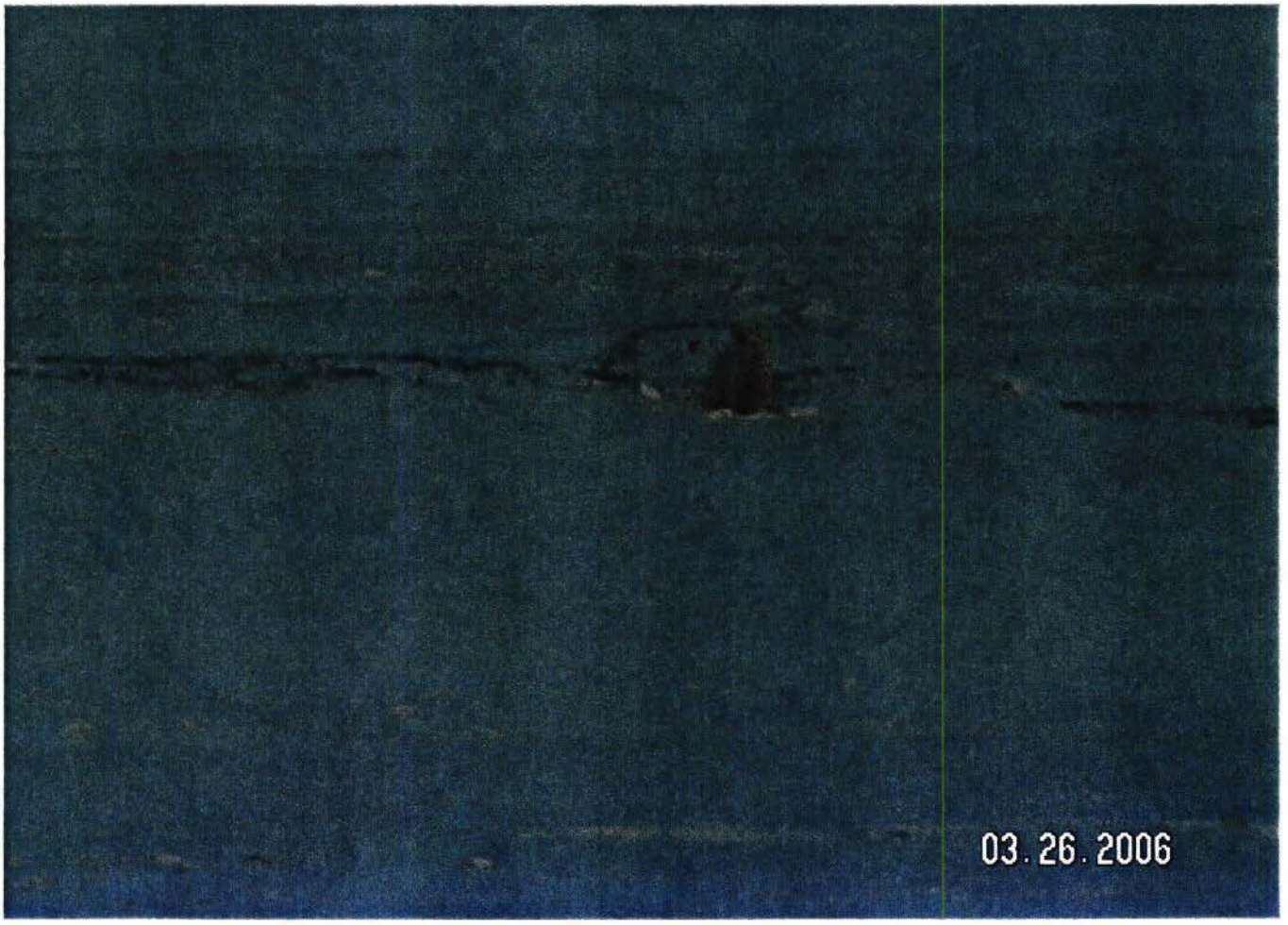
KUUKPIK LCMF LLC
139 E. 51st Ave. - Anchorage, Alaska 99503 - (907) 273-1830
Alpine Office (907) 670-4739
Alpine Survey Office

CONOCOPHILLIPS ALSKA, INC.
APPROXIMATE
POLAR BEAR DEN LOCATION
ALPINE, ALASKA

DATE: 3/29/06	DRAWN BY: AG	SHEET: 1
SCALE: N.T.S.	CHECKED BY: DB	W.O. No:

AUTOCAD DRAWING NAME: BEAR_DEN.DWG PLOTTING DATE: 03/31/06 (07:11)

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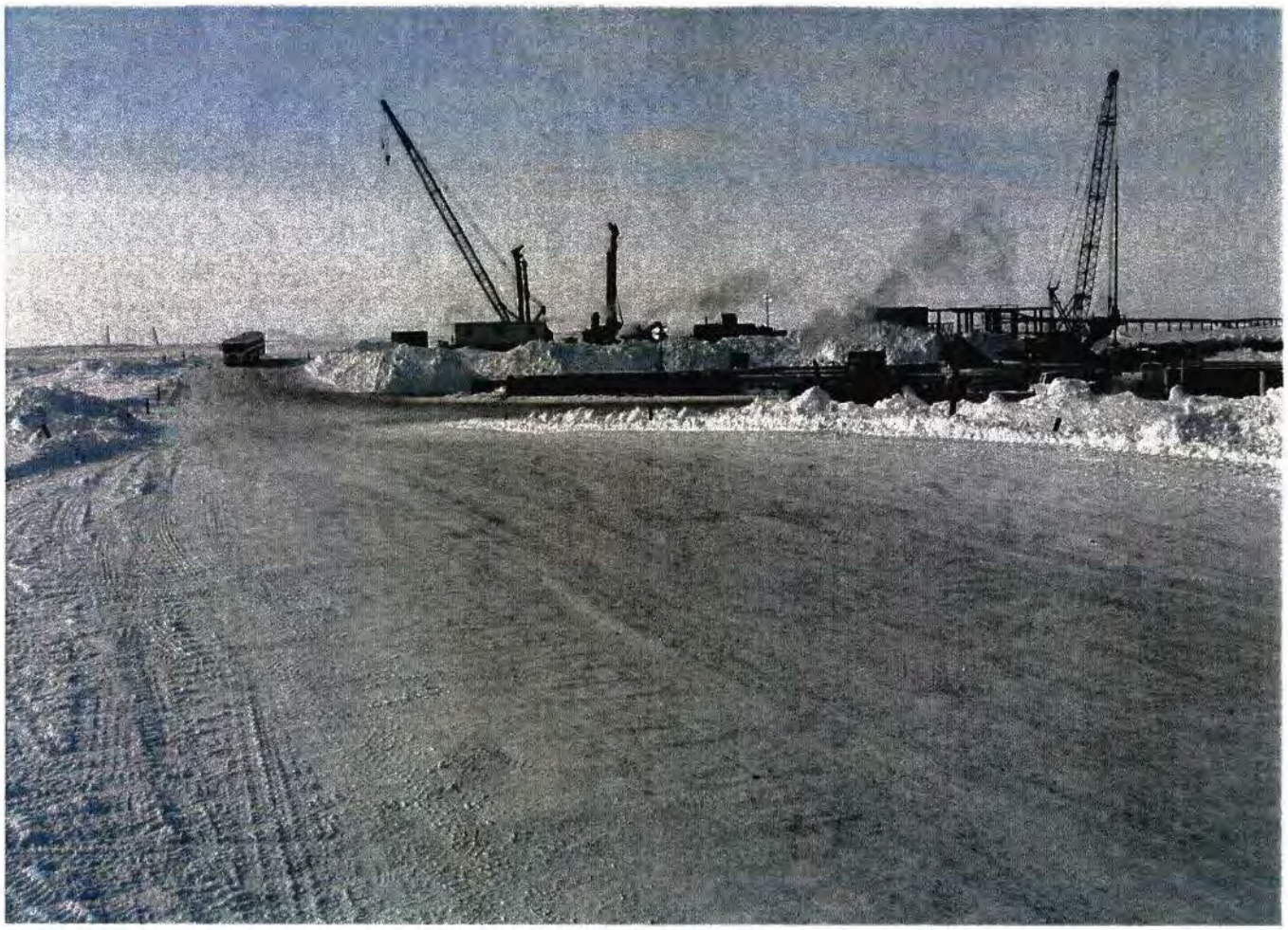
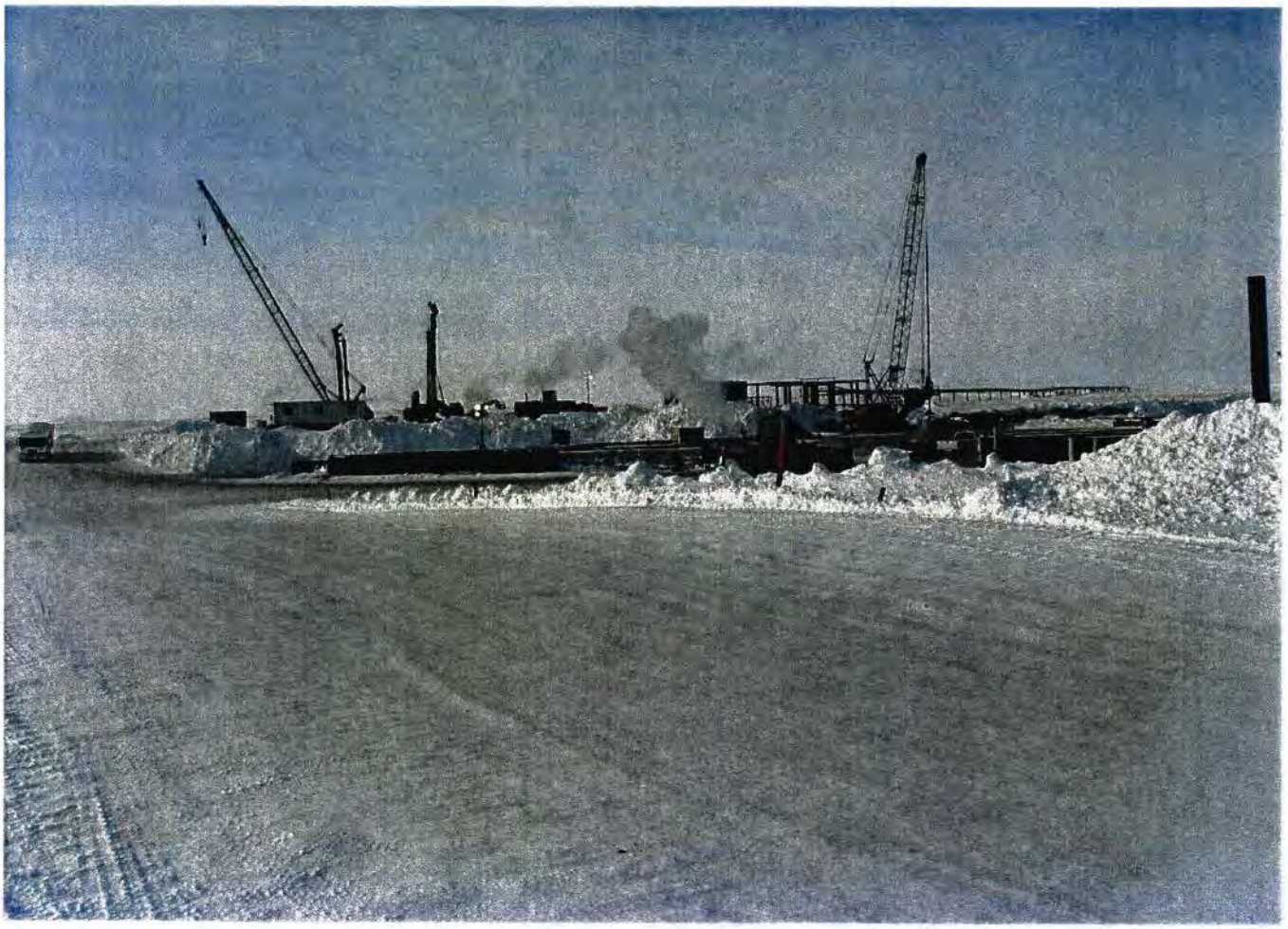
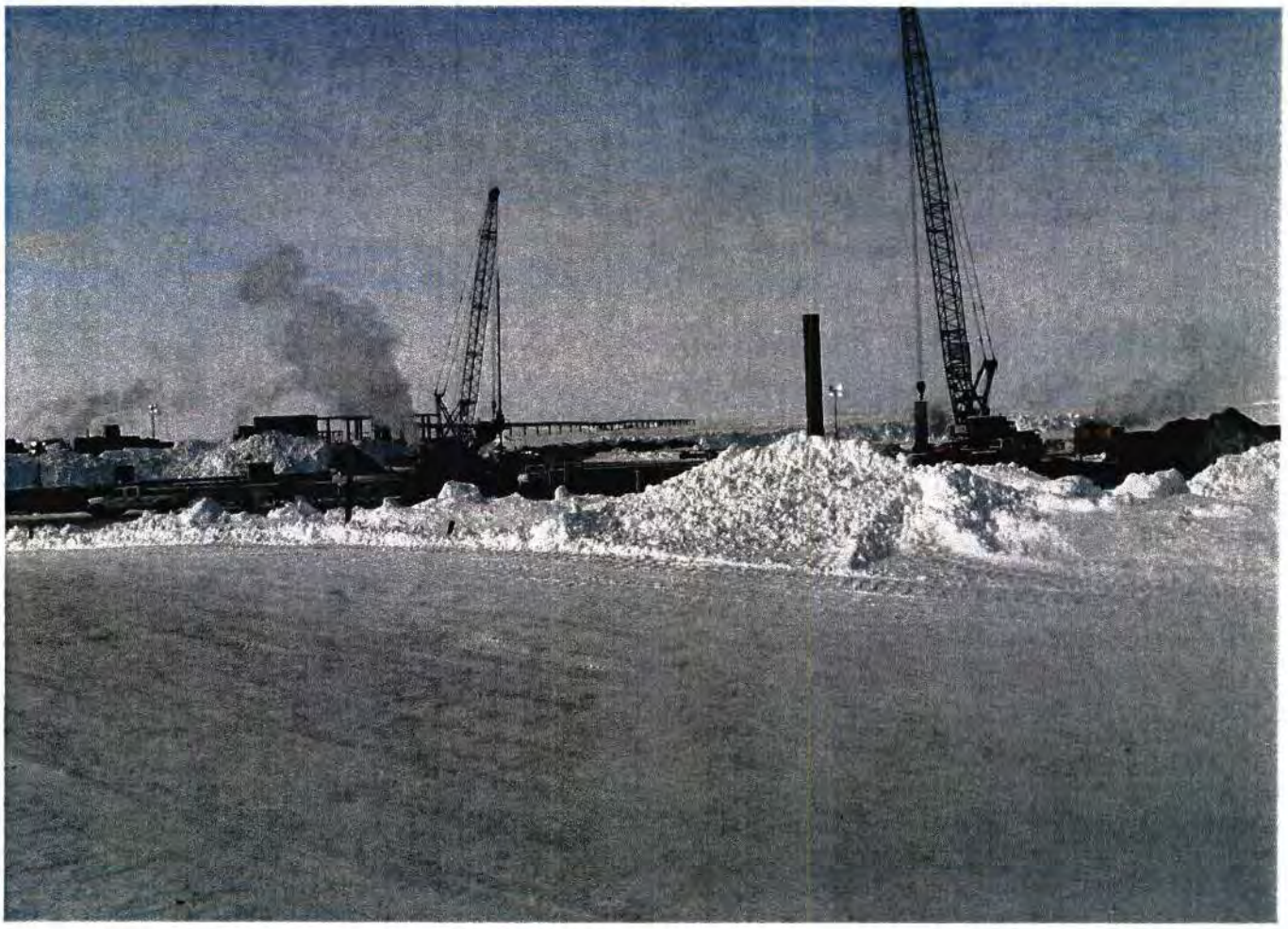
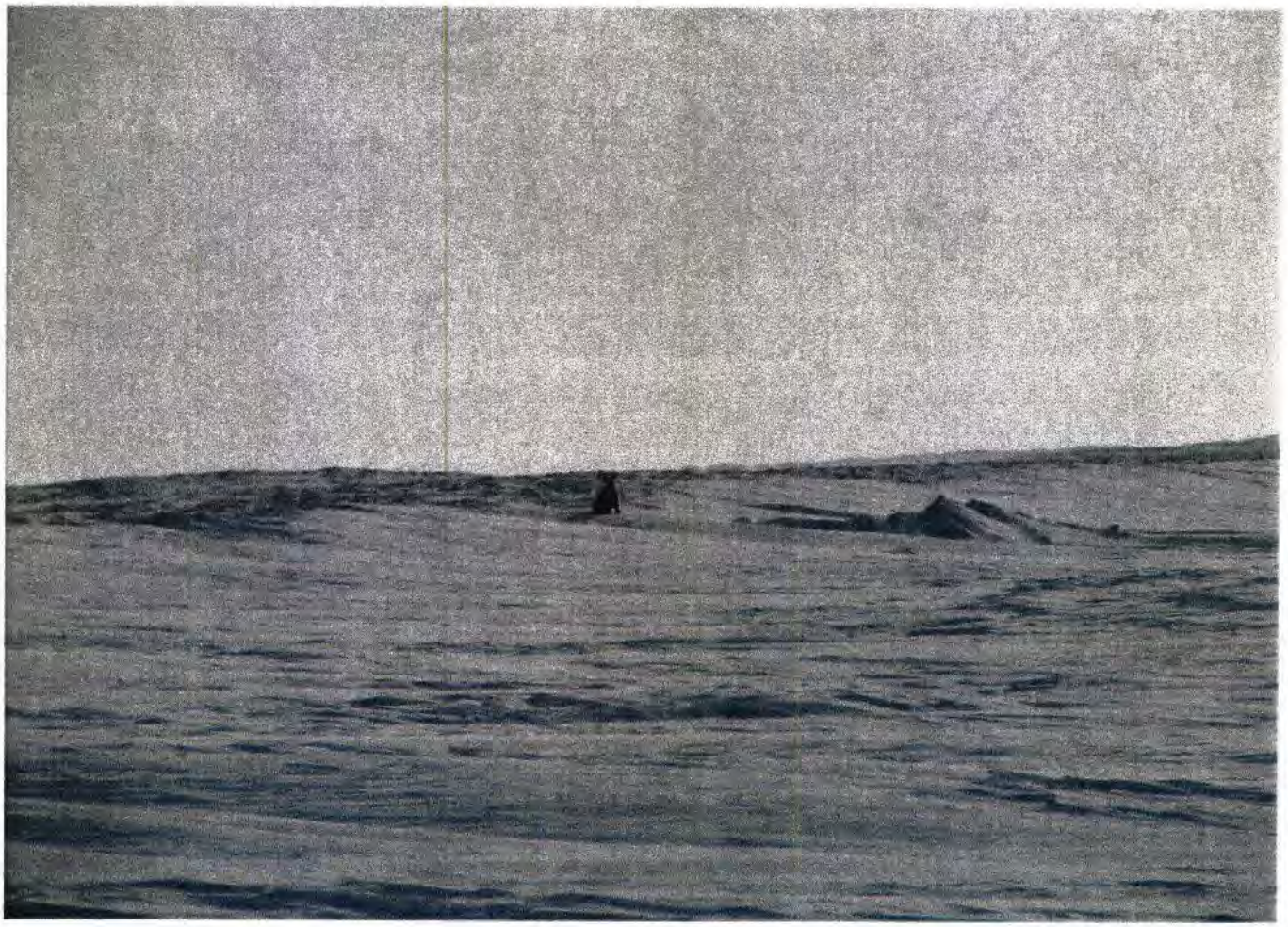
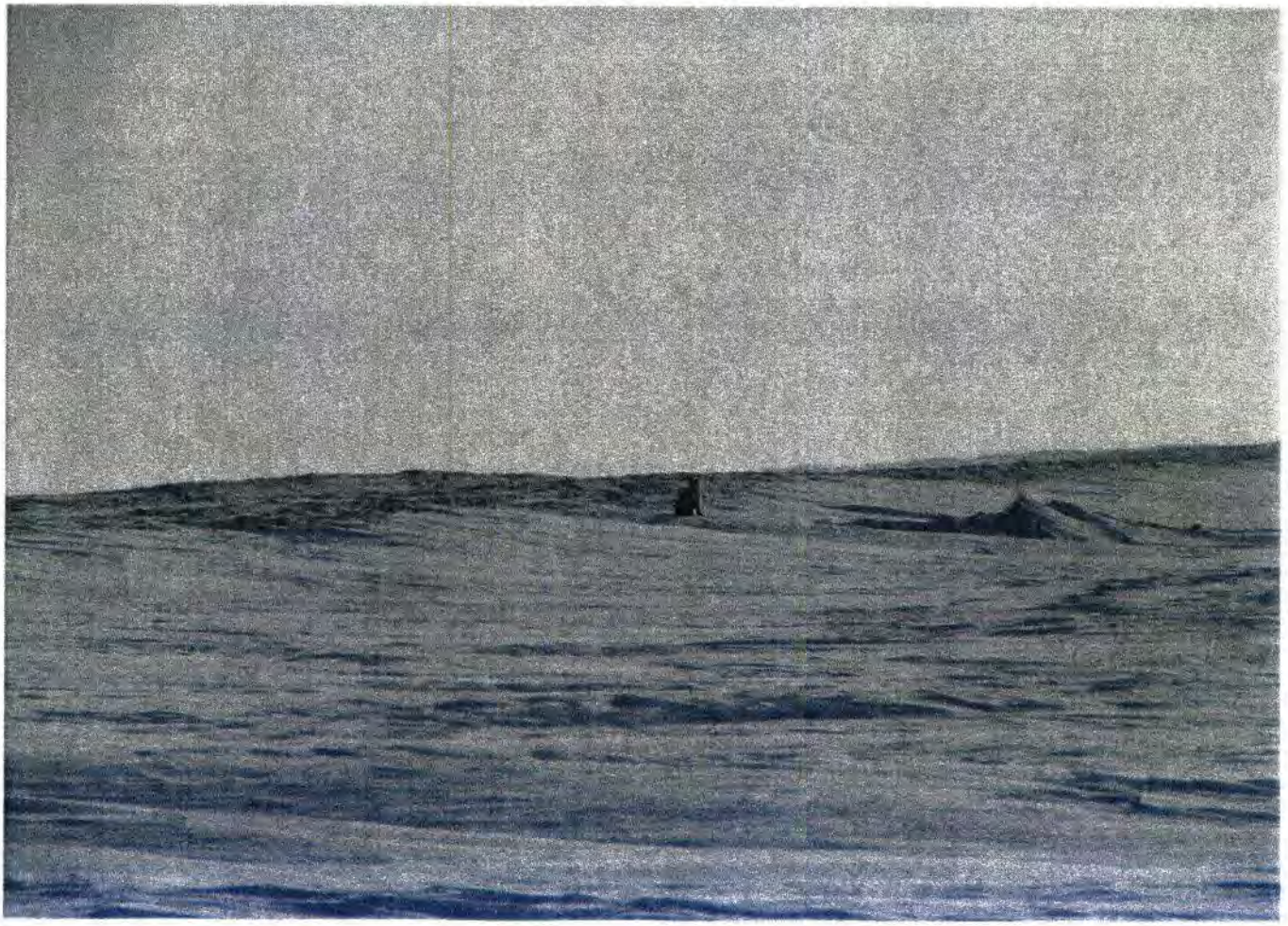
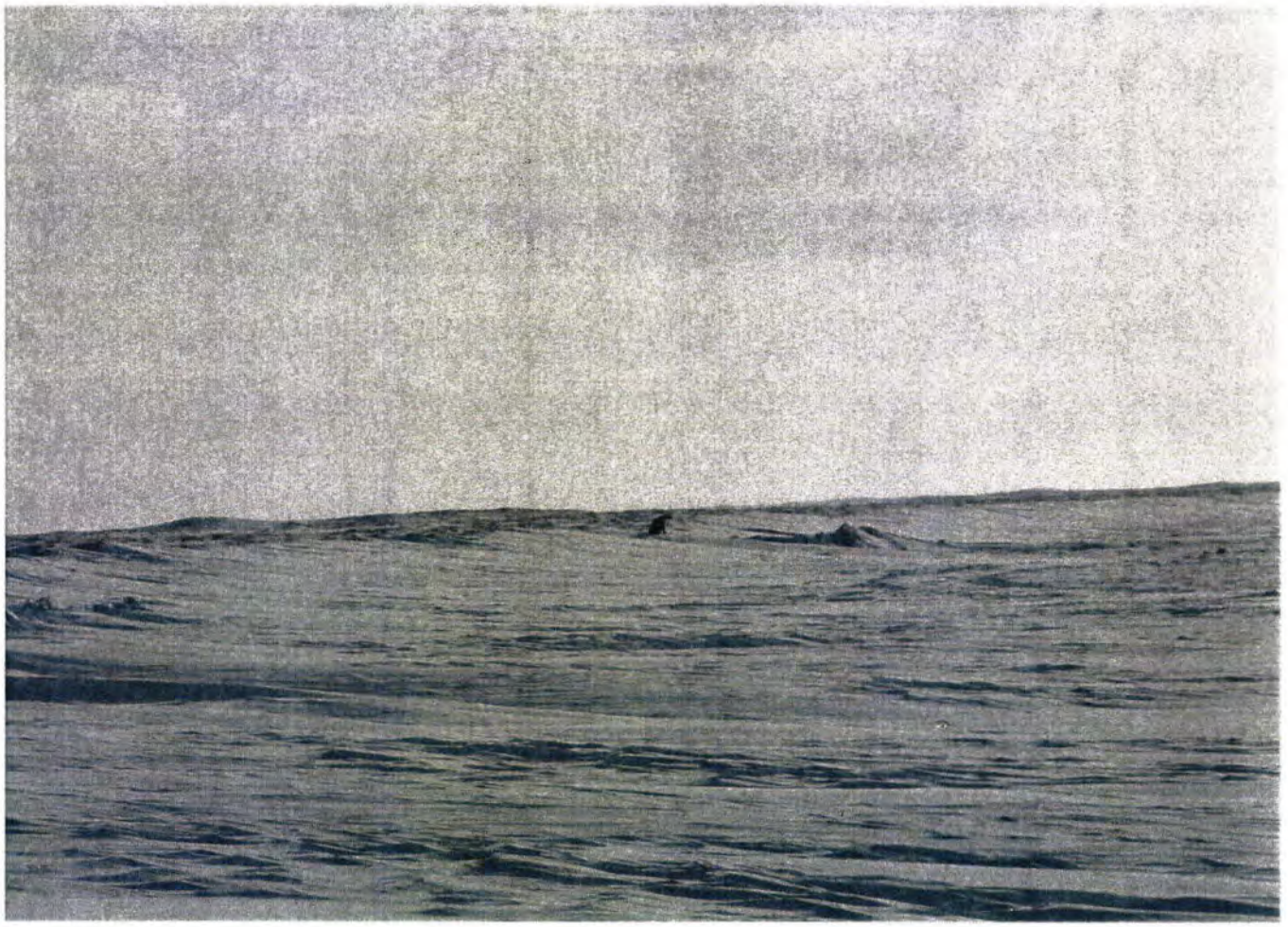


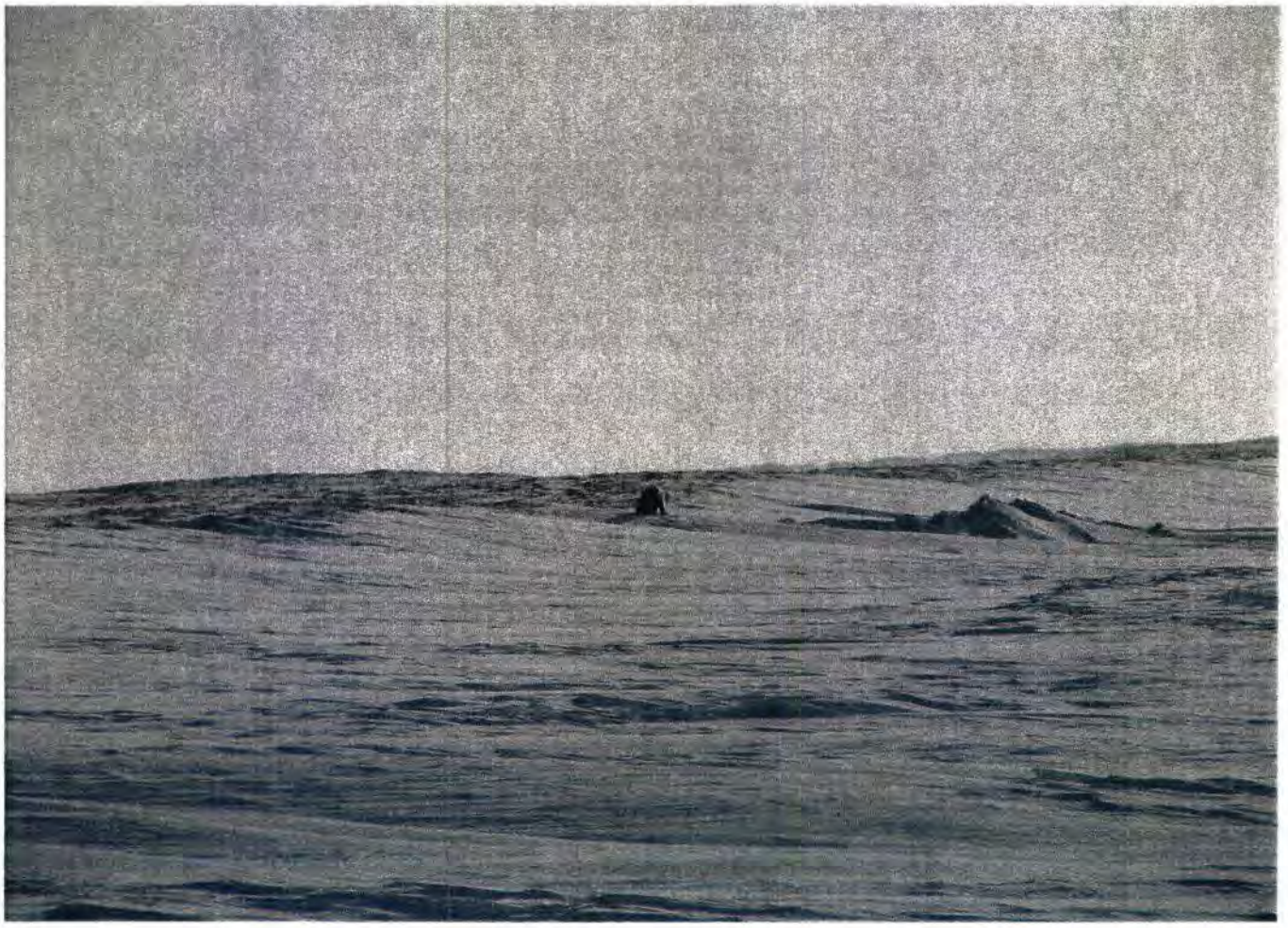


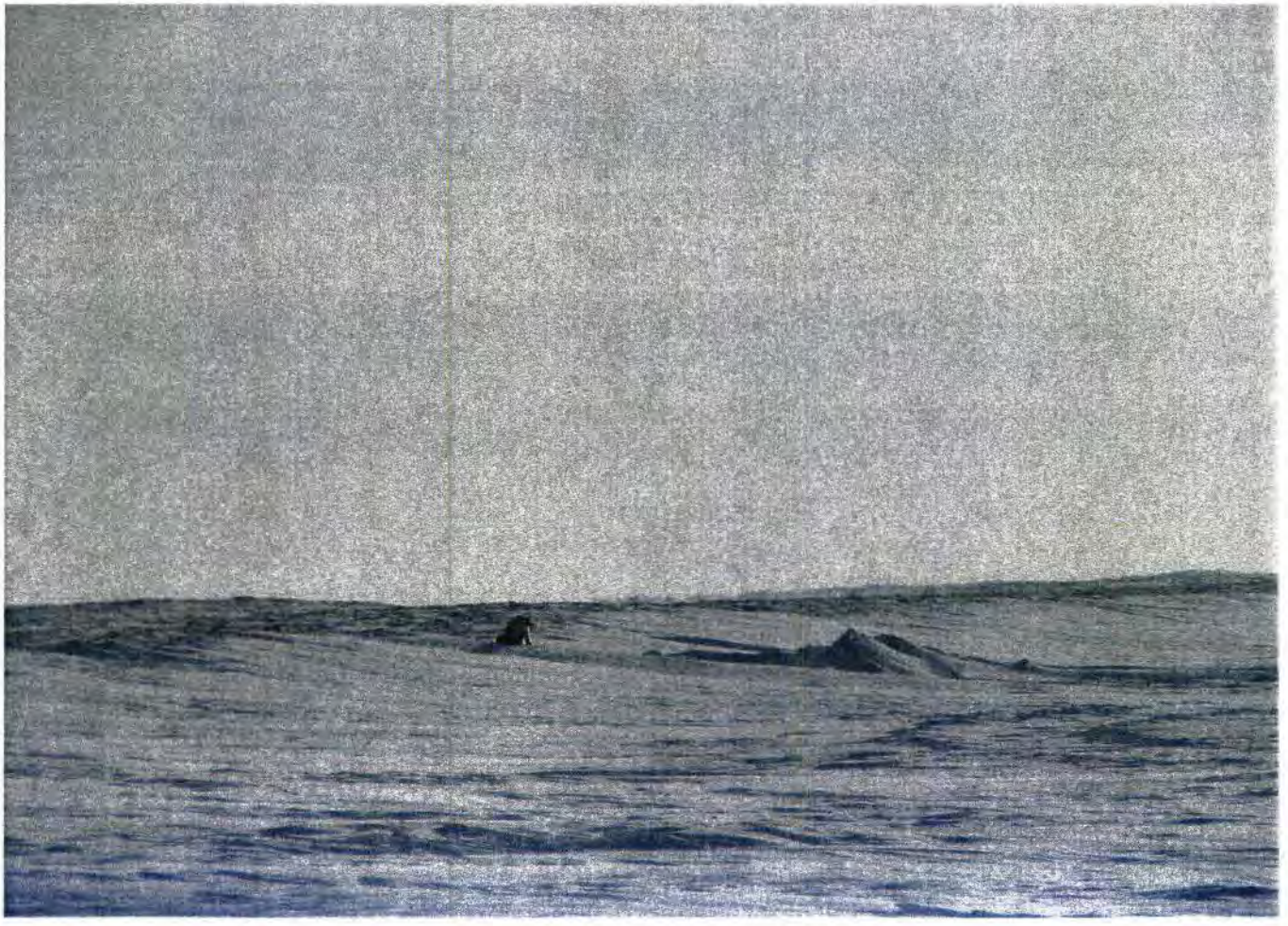


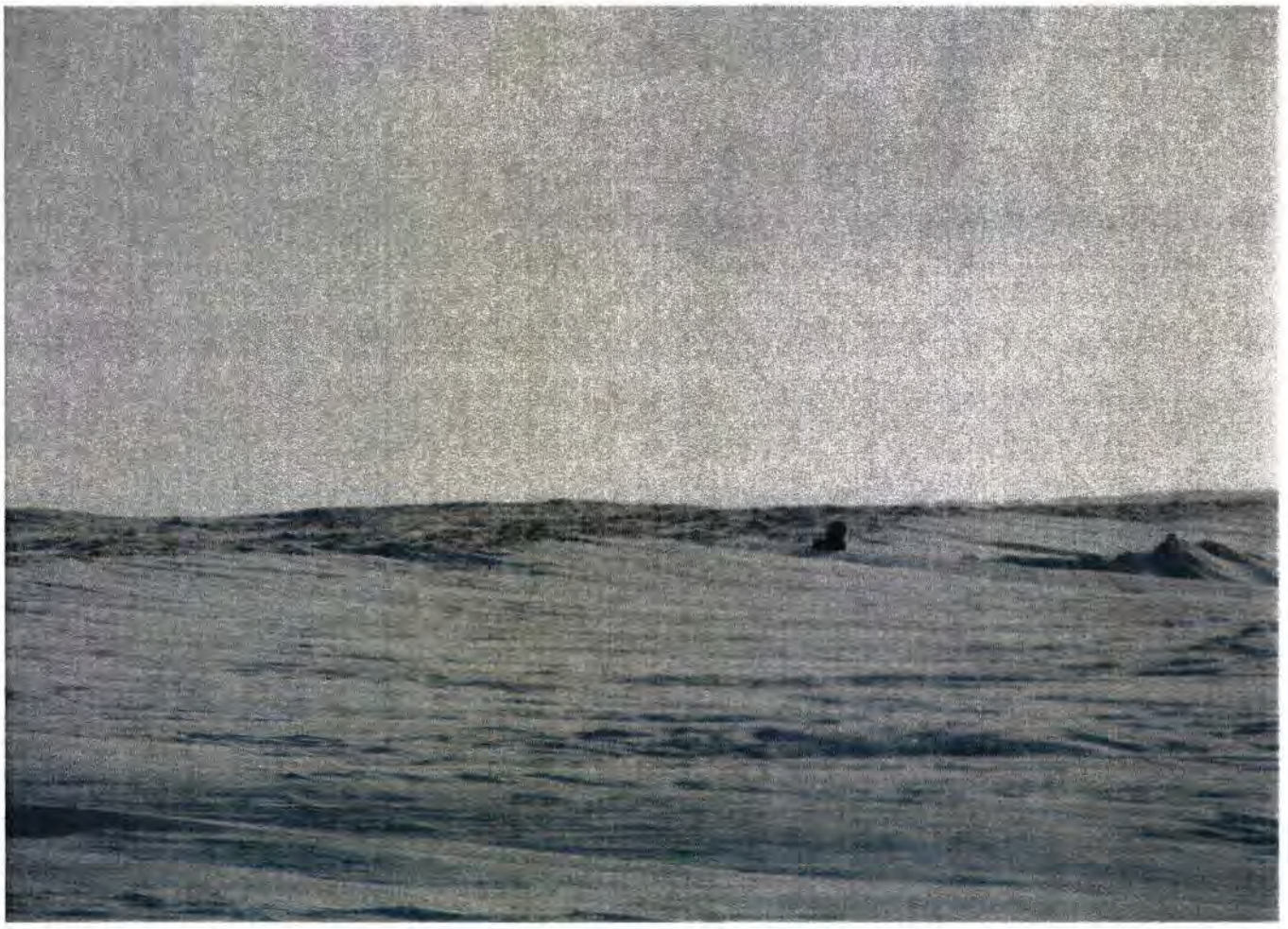


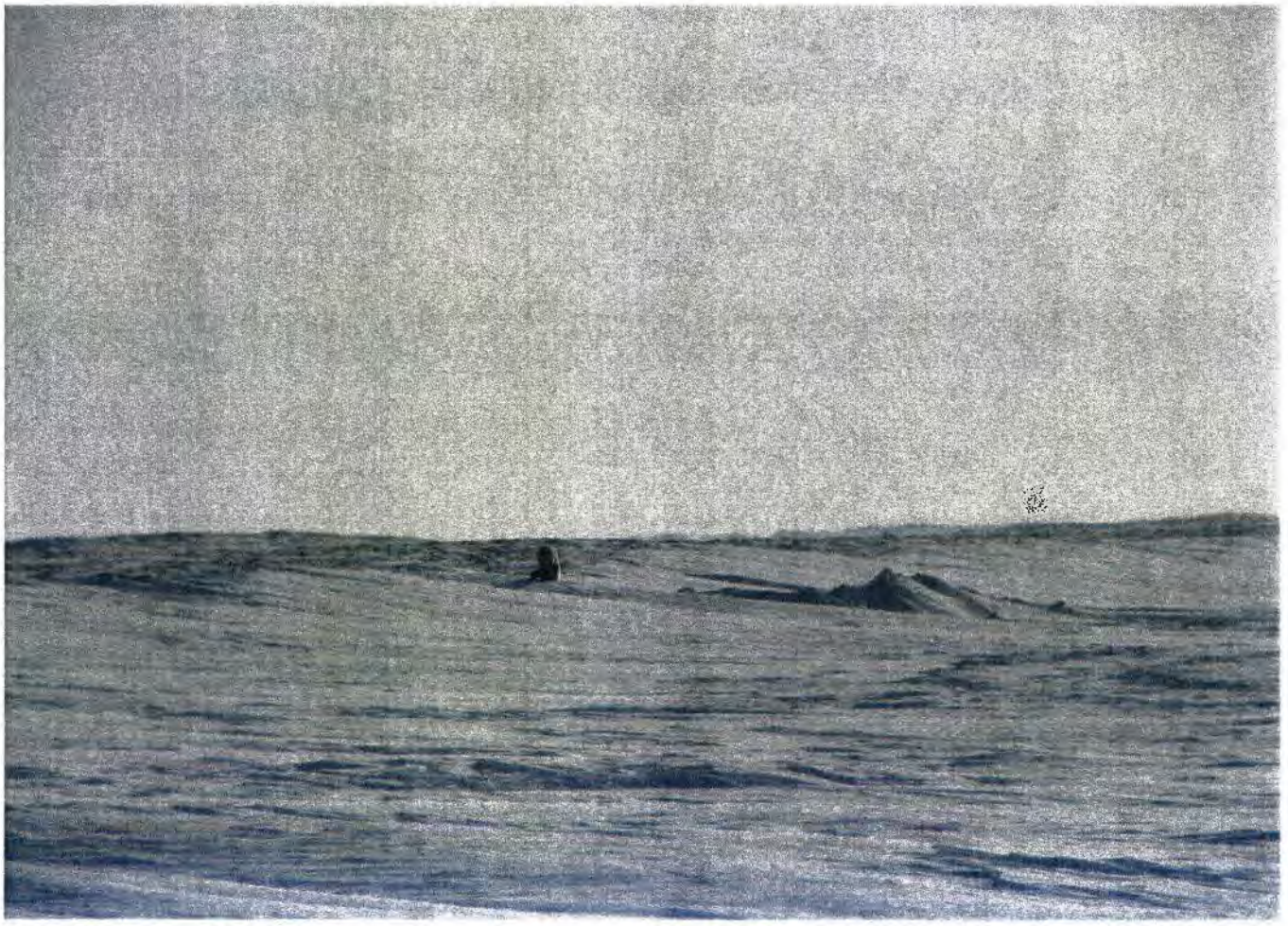


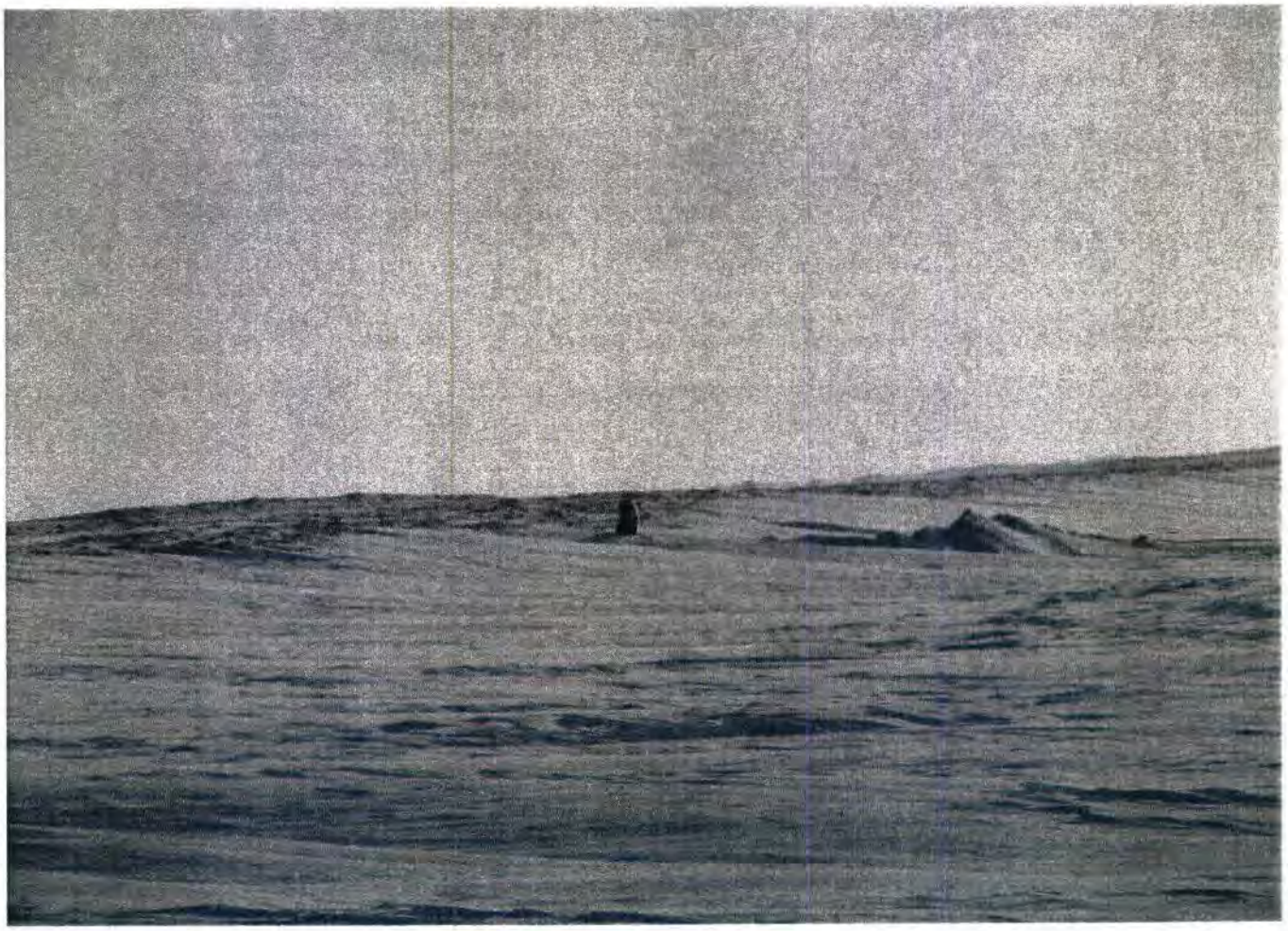


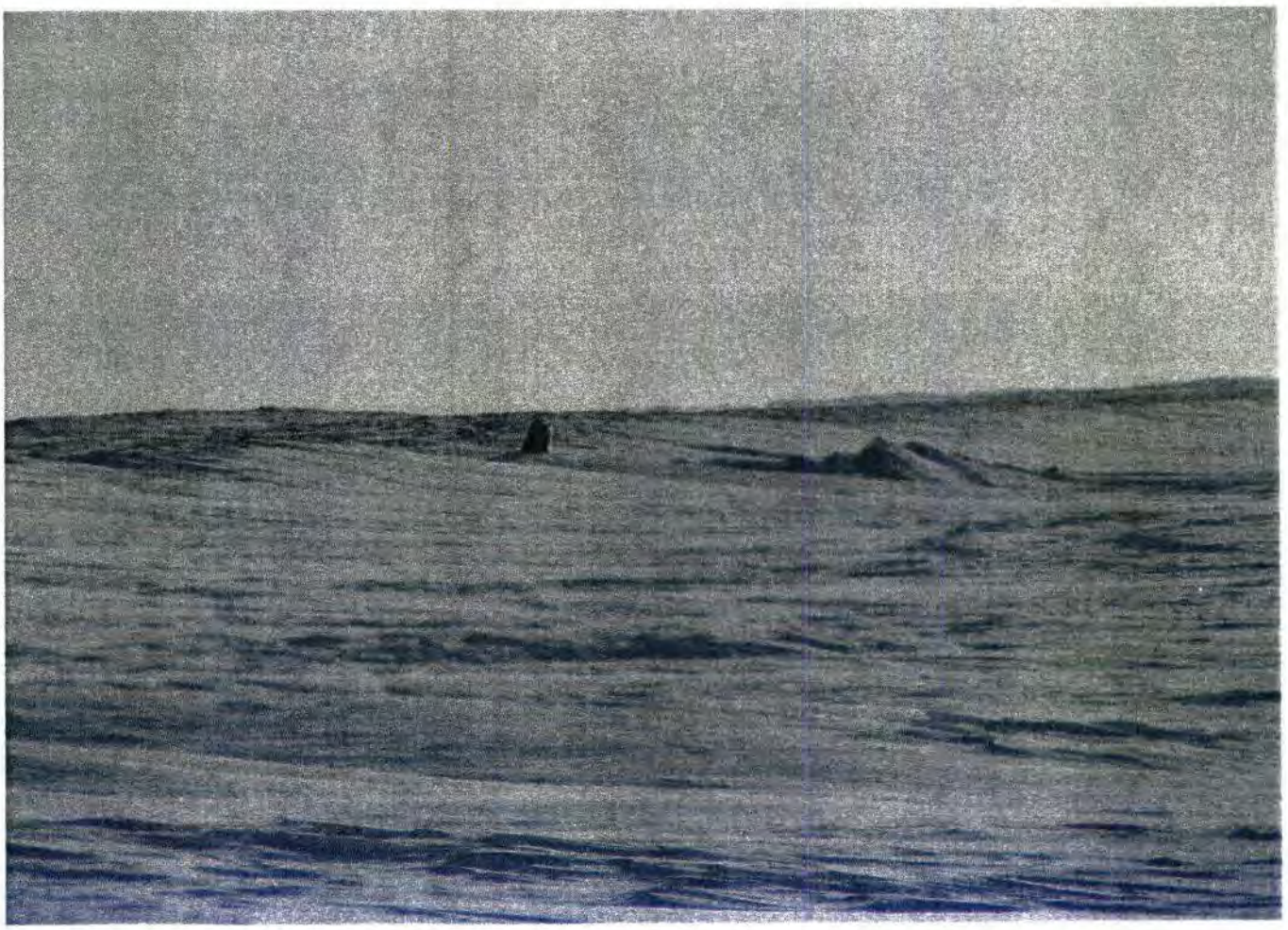


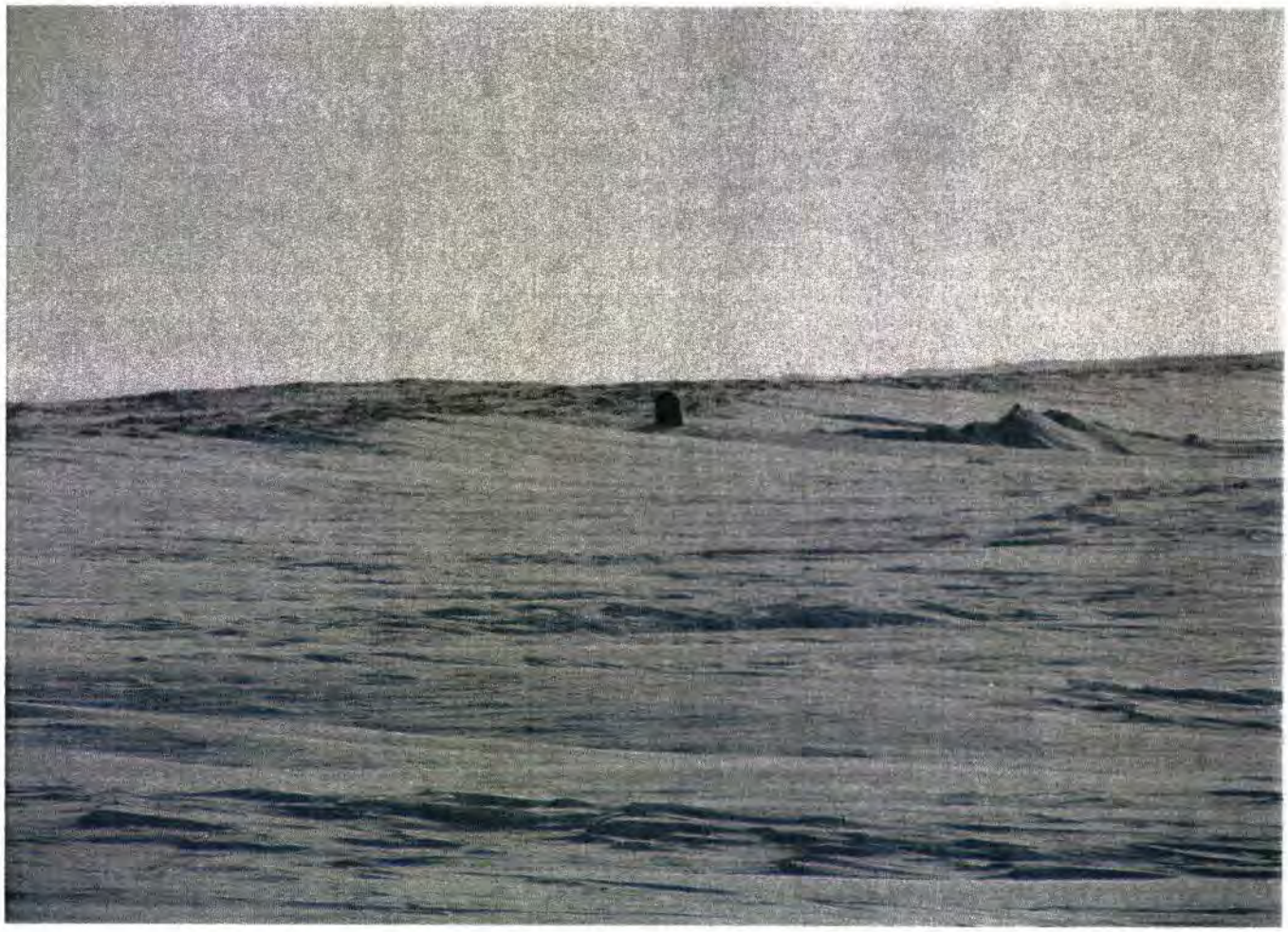


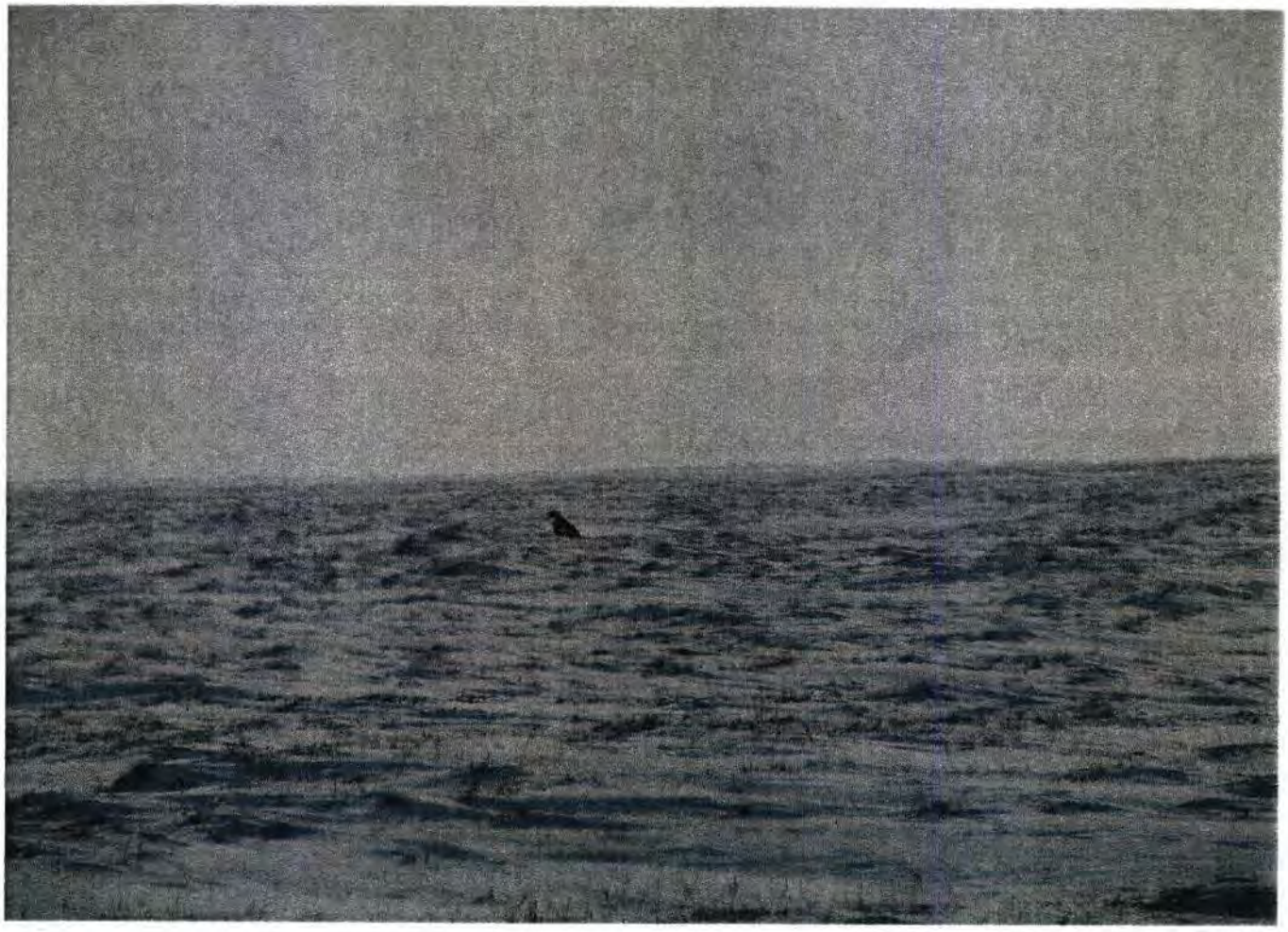


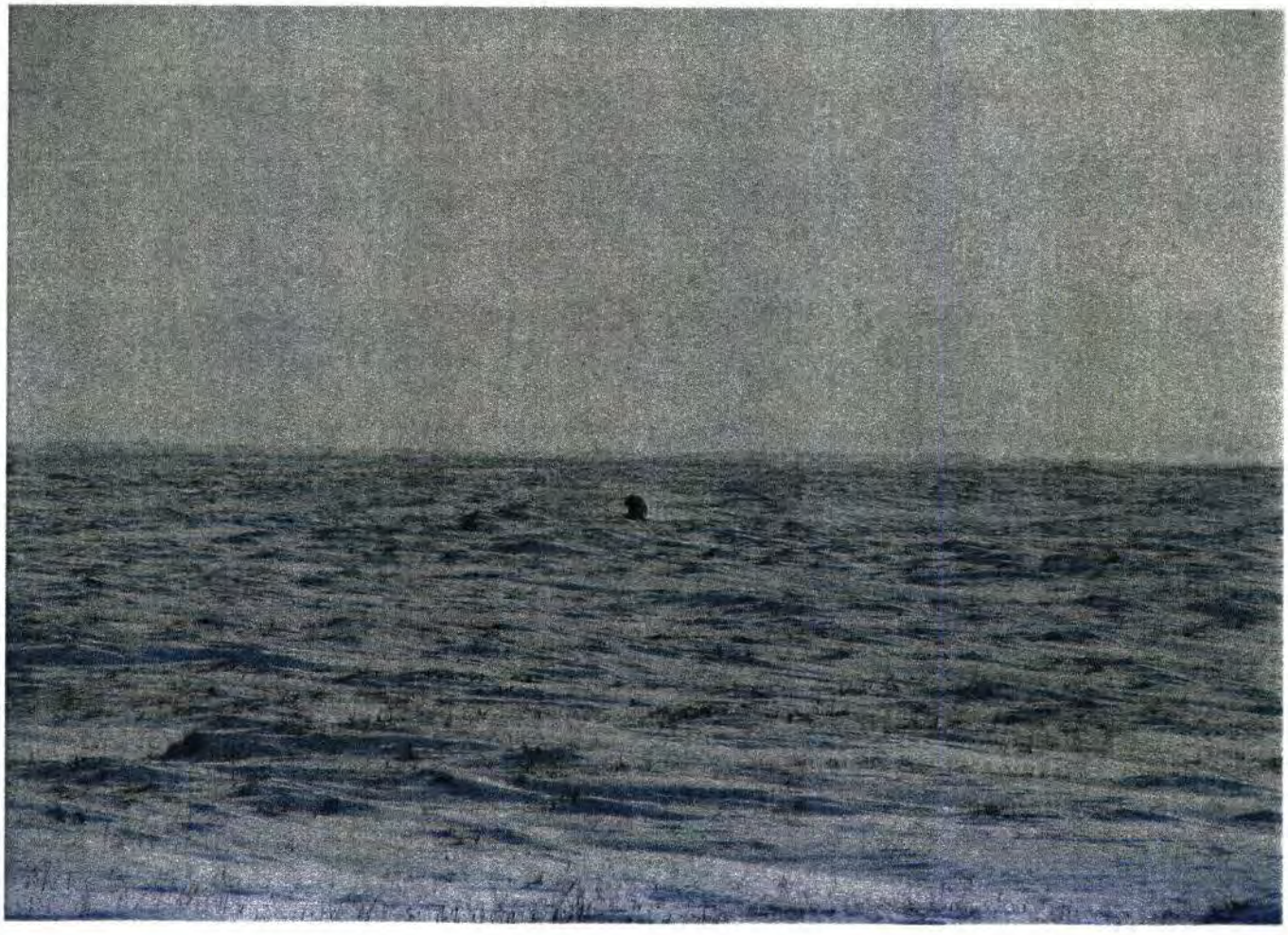












"Rea, Caryn"
<Caryn.Rea@conocophillips.com>
03/27/2006 05:16 PM

To <Craig_Perham@fws.gov>
cc
bcc
Subject FW: CD-3 #5 bridge crossing

Fyi. Lets talk in the morning. 9 am?
caryn

Caryn L. Rea
Sr. Staff Biologist
(907) 265-6515 phone
(907) 265-6216 fax
*(907) 229-8972 cell (**NEW!**)*

Have a great day!
<<Rea, Caryn.vcf>>

-----Original Message-----
From: ALP Env Coord
Sent: Monday, March 27, 2006 4:26 PM
To: Rea, Caryn; ALP Survey Mgr; Uselmann, Charles E.
Cc: Belman, Roger (LDZX); Harth, Justin
Subject: RE: CD-3 #5 bridge crossing

Caryn,
Haven't consolidated your recommendations into the enclosed document yet, but will do so. We need a Plan for this Crossing and we need a hand out for the crew and probably need to send out an alert (since it's already been done by Security and was requested by Ted Cipra).

4:18 pm Latest from Security Bear Watch is the sow and cubs are about 1.5 miles N-NE from the den. One cub she's had to stop several times and go back for. Two ravens began to harass the cub that fell behind each time that it occurred until the sow stopped to feed it. KSOP wants to go to the den as soon as they know she has abandoned it. Security said he hopes they do not do that too soon.

We couldn't get the range-finder to read the polar bear. Possibly LCMF can survey the den location. Some survey tri-pods are on-site over by the river VSM's. As far as activity goes, the crew was mainly welding and moving large VSM pipe around the pad. Not a lot of clanking when I was present for about 60 minutes between 11-12 noon only small movements on pad with equipment and materials. It appeared the crew was allowing the slurry around the casing to set up. The casings are being slurried into the riverbed and pipees will be placed inside the casings. Some welding is going on mainly on sides of the riverbank. Probably about 15-25 people at the CD3 Crossing 5 that includes folks in trucks, equipment breakshacks and in close locations on either side of the riverbed. One crew bus is on-site and does transport workers along the pipeline. Discussions at the morning safety meeting were to avoid area and stay safe and inside when possible, keep food wastes inside. - S

Rea, Caryn.vcf

1) CPAI - LIABILITY ? KSOP
2) Follow-up FE
CPAI

Craig Perham/R7/FWS/DOI
03/28/2006 04:01 PM

To "Alpine Security" <n1493@conocophillips.com>
cc
bcc
Subject Re: Polar Bear sighting

Mark,
Thanks for this effort. This is really great!
Craig
"Alpine Security" <n1493@conocophillips.com>

"Alpine Security"
<n1493@conocophillips.com>

03/27/2006 08:36 PM

To <craig_perham@fws.gov>
cc "ALP ATAC" <n1493a@conocophillips.com>
Subject Polar Bear sighting

Craig, attached is a time line. I will give Shelly a hard copy with a polar bear report form tomorrow. You can reach me at 670-4005 tomorrow if you have questions.

Mark

POLAR BEAR SIGHTING JOURNAL TIMELINE

27 March 2006

06:29 SOW POLAR BEAR EXITS DEN WITH 1 CUB

06:32 SOW AND CUB ENTER DEN

08:56 SOW AND 2 CUBS EXIT DEN MILL AROUND AREA WITH IN 6-10 YARDS

09:47 SOW AND 2 CUBS ENTER DEN

11:59 SOW AD 2 CUBS EXIT DEN AND START MOVING NORTH/NORTHWEST, ONE CUB DISPLAYING WEAKNESS, SOW CONTINUALLY HAVING TO COME BACK AND COAX IT ALONG

12:37 2 RAVENS FLY VERY CLOSE TO WEAKER CUB, SOW REACTS AND PULLS IN CUBS. RAVENS LAND CLOSE BY

12:41 RAVENS LEAVE, SOW NURSES CUBS

13:22 SOW AND CUBS START MOVING NORTH/NORTHWEST (N/NW), SECOND CUB STILL LAGGING BEHIND

13:29 RAVENS FLY VERY CLOSE TO WEAKER CUB, SOW REACTS AND PULLS IN CUBS,, RAVENS LAND

13:35 RAVENS FLY OFF, SOW AND CUBS KEEP MOVING N/NW

13:45 SOW AND CUBS APPROXIMATLEY ¾ MILE FROM DEN

14:03 SOW AND CUBS STOP, POSSIBLY NURSING

15:37 SOW AND CUBS START MOVING AGAIN N/NW

16:08 SOW CLIMBS UP OVER PENGO BLUFF, CUBS NOT ABLE TO CLIMB UP, STOP FOR A BREAK

16:20 SOW STARTS TO DIG WHAT APPEARS TO BE A POSSIBLE DEN

16:25 SOW LAYS DOWN WITH CUBS

16:27 SOW GETS UP CLIMBS HILL, CUBS TRY BUT FAIL, SOW MILLS AROUND

16:34 SOW STARTS DIGGING AGAIN, SAME SPOT

17:30 SOW LAYING IN DEN BUT PARTIAL BODY EXPOSED

17:38 SOW CONTINUES TO DIG

17:49 SOW NOW INSIDE DEN, NOT ABLE TO SEE HER

17:52 SOW DIGGING AGAIN

18:30 SOW APPEARS TO BE DONE DIGGING, MOVING AROUND AREA

18:41 SOW ENTERS DEN

18:55 RELIEF OFFICER REPLACES ME ON LOCATION, BRIEFED HIM ON ACTIVITY

LOCATION OF ORIGINAL DEN

FROM GPS N70.24.340' W150.52.804' FROM THIS LOCATION, DEN IS LOCATED APROXIMATELY 250-300 YARDS ALONG THE NORTHWEST SIDE OF THE RIVER BANK

LOCATION OF SECOND DEN

FROM GPS N70.24.496' W 150.52.862' FROM THIS LOCATION IT IS LOCATED DUE NORTH APPROXIMATLY 1.25 – 1.5 MILES ON A PENGO WITH A CUT BLUFF FACING SOUTH

Craig Perham/R7/FWS/DOI
03/28/2006 05:04 PM

To "ALP Env Coord" <n1508@conocophillips.com>
cc
bcc
Subject Re: FW: Flight Schedules

Thanks, Shelly. It's looking like the earliest I can go is Thursday anyways. I'll keep you posted.
Craig
"ALP Env Coord" <n1508@conocophillips.com>

"ALP Env Coord"
<n1508@conocophillips.com>

03/28/2006 04:13 PM

To <craig_perham@fws.gov>
cc
Subject FW: Flight Schedules

Craig,
Had to remove the zip picture folder because it was too large. Will have to send you a few here instead.
Shellie

<<Polar Bear 3-06 037.jpg>> <<Polar and Cub Alpine 3-06 (1).JPG>> <<Polar and Cub Alpine 3-06 (3).JPG>>

-----Original Message-----
From: ALP Env Coord
Sent: Tuesday, March 28, 2006 4:09 PM
To: 'craig_perham@fws.gov'
Cc: Rea, Caryn; NSK Expl Env; ALP Cnst Env Coord; CPA Cnst Env Tech Kocinski&Williams
Subject: Flight Schedules

Hello Craig,
Last report by Security was at 12:30 pm and that was that the bear and cubs disappeared out of sight, last sighted heading in a North-Northwest direction.

Enclosed are flight schedules for CASA and otter, two fixed-wing commuters. Let me know which flights you like or whether we should request a special flight or route for observations.

Regarding the room. Wednesday evening is very tough. We'd have to place you in a room with a roommate, but it's possible. If at all possible the billeting asked that you make reservations for Thurs and/or Friday evening when they can find you a single-status room.

Pictures are also enclosed for your review.
Shellie. [attachment "Polar Bear 3-06 037.jpg" deleted by Craig Perham/R7/FWS/DOI]
[attachment "Polar and Cub Alpine 3-06 (1).JPG" deleted by Craig Perham/R7/FWS/DOI]
[attachment "Polar and Cub Alpine 3-06 (3).JPG" deleted by Craig Perham/R7/FWS/DOI]

PROVISIONAL POLAR BEAR DEN DATA FORM

Den ID: _____ **Bear ID:** _____ **Spring Denning Year:** 2006

Date Examined: 30Mar06 Examined by: C. Perham (USFWS) AJ Griffin (LCMF
Chuck Wheat (Conoco) Robert Lampe } KSOP
Dan Weatherly (Purcell) Chester Hopson }

Examined by: (ground / air)

Days since wind that would have covered tracks: UNK : tracks visible

How was the den found? Bear emerged 400 m from CD3 pipeline construction @ River crossing #5

Type of den: (Maternity / non-maternity overwintering/ temporary) Comments:

LOCATION

70°24'11.8", -150°52'19.5" (Lat / Lon) Datum: (NAD27 / WGS84)

Method of determining location: (overflight / on the ground)
(plotted on map, GPS, PLGR)

If map, map series_____; If GPS or PLGR, model_____.
(averaged position or single fix)

If overflight describe overflight conditions, aircraft and altitude:

WINTER HABITAT

Habitat Type: (floating ice, landfast ice, land)

Describe habitat features associated with den:

FOR ICE DENS:
Stage of ice (multi-year, first year)
Stability of ice: (inactive – few and old pressure ridges; active – numerous and recent pressure ridges)
Describe height of pressure ridges: (average height, maximum height)
Den location relative to pressure ridges:

FOR LAND DENS:
Describe surrounding terrain and vegetation.
Describe location of den relative to landscape features.
N river bluff. off Tamayayak Channel of Colville R.

DEN OCCUPANCY

Age, Sex and ID of bears occupying the den:
Visual on ♀ + 2 COYS by Alpine security @ river crossing
Evidence of occupancy: (ice formed in nest area; feces or urine stains in or around the den; evidence of feeding in or around the den): Describe:
ice lens in nest area
feces + urine in + around den

Evidence of cub mortality; describe and collect evidence:
No apparent cub mortality

Evidence of activity in and near den: (Was the den used after emergence?)
Bear emerged 24 Mar 06 (Fri) (Possibly). Used den until 27 Mar 06 (Mon). Departed North

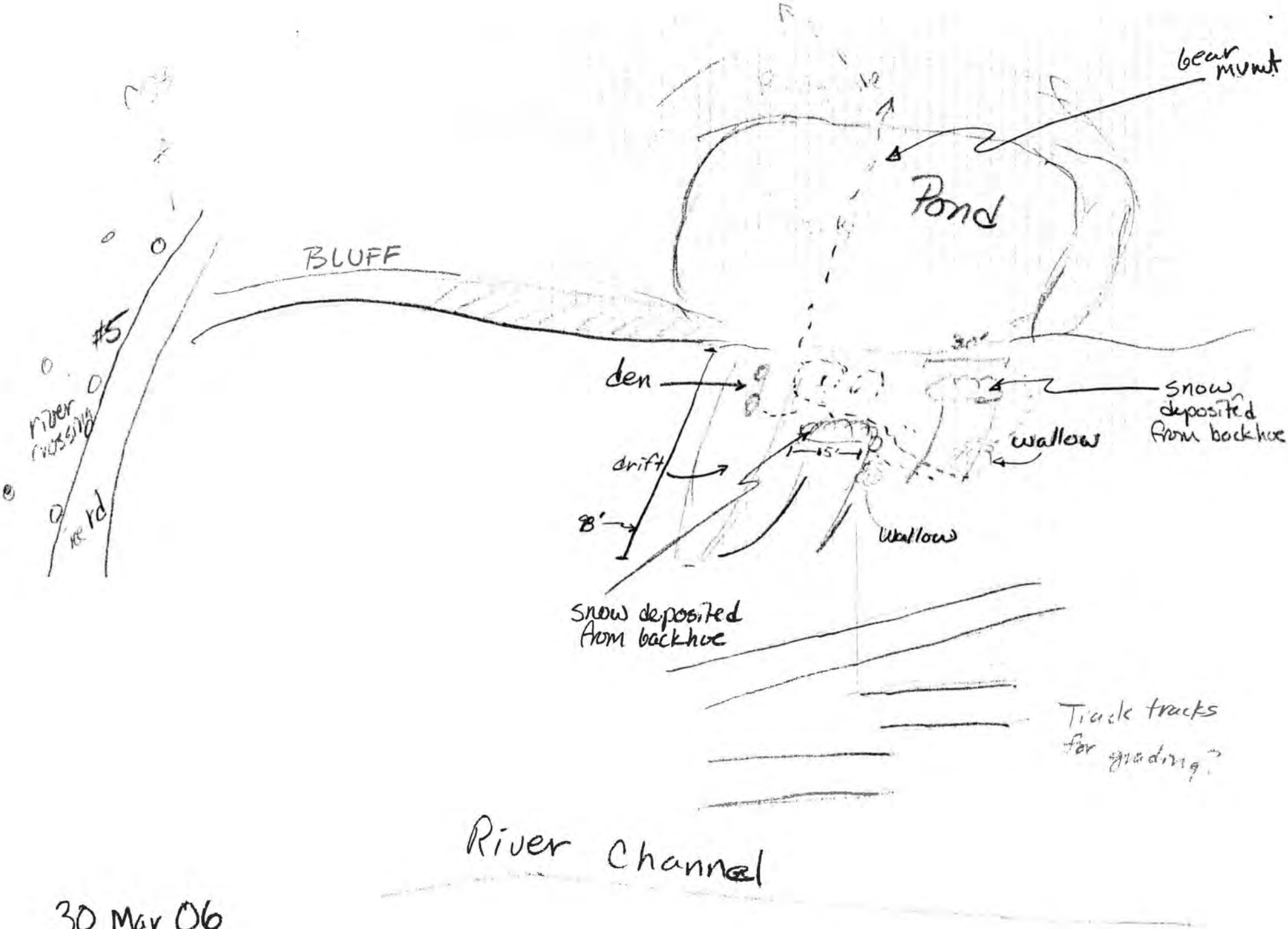
Are there know disturbance events that occurred during denning?
Describe (date, nature of disturbance, closest approach to den, response of bear to disturbance)
Den ~400m E of CD3 River Crossing #5 Activity to put in pipeline crossing - cranes, heavy equipment. Highly active area 15-20 people noise
Estimated date of den emergence and den departure: see above
Describe evidence. → Visual

DEN DESCRIPTION

Snow depth: over nest_____ over passages_____
Under nest_____ under passages_____

Slope at site_____ Direction den faces 55°

SKETCH DEN NOTING LOCATION OF DEPTH MEASUREMENTS


bear mount
Pond
BLUFF
#5
river crossing
rd
den
snow deposited from backhoe
wallow
drift
15'
88'
wallow
snow deposited from backhoe
Truck tracks for grading?
River Channel

30 Mar 06

30 Mar 06 Thur

Opening A: 1.2' x 1.2'

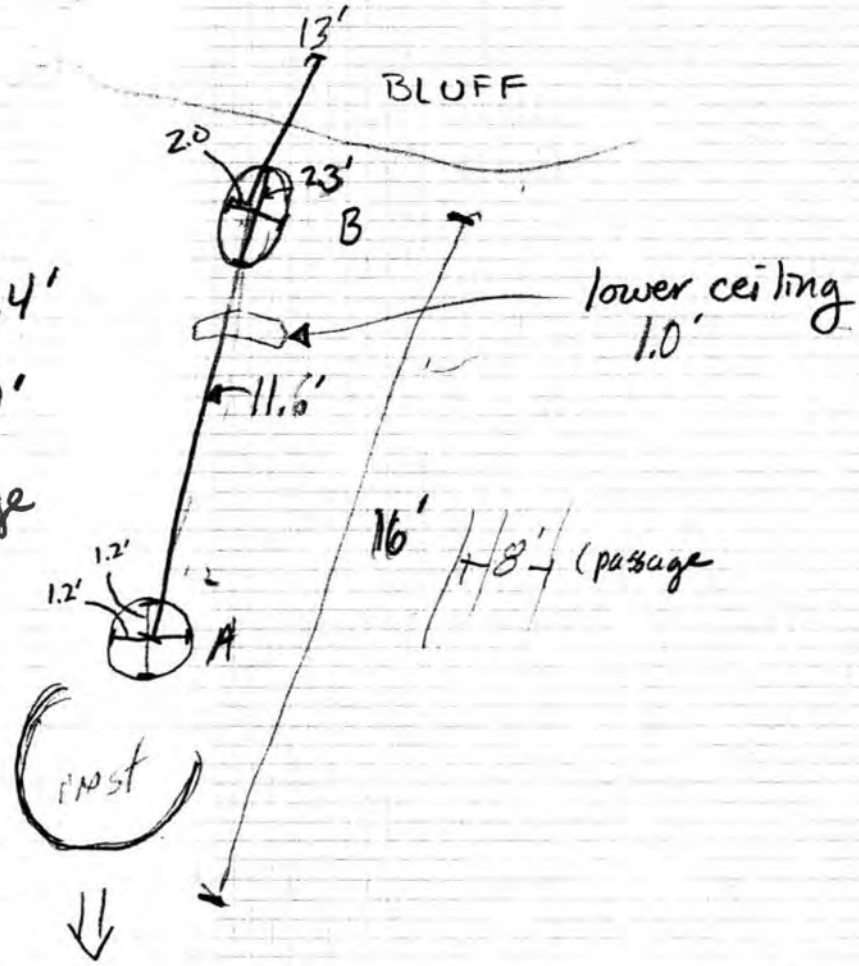
Opening B: 2.3' x 2.0'

Ceiling of den @ A: 1.4'

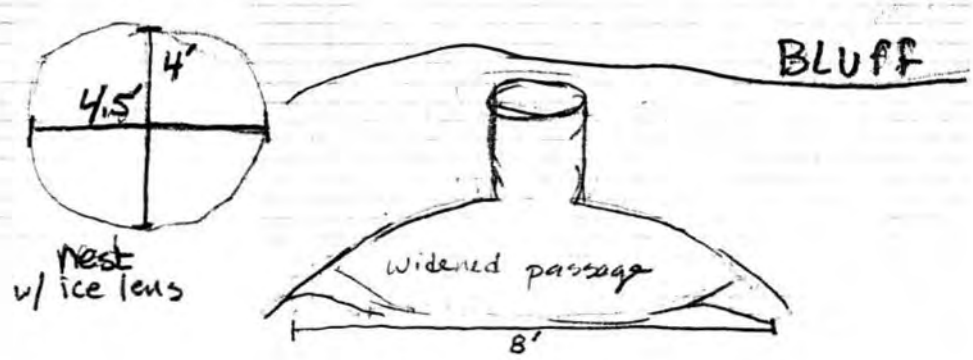
Ceiling of den @ B: 3.0'

Top hole (B) to bluff ridge 13.0'

Depth of snowdrift @ nest: 200cm



nest
w - 4.5'
l - 4'
ht - 2.7'

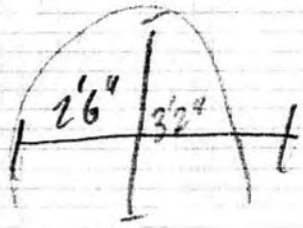


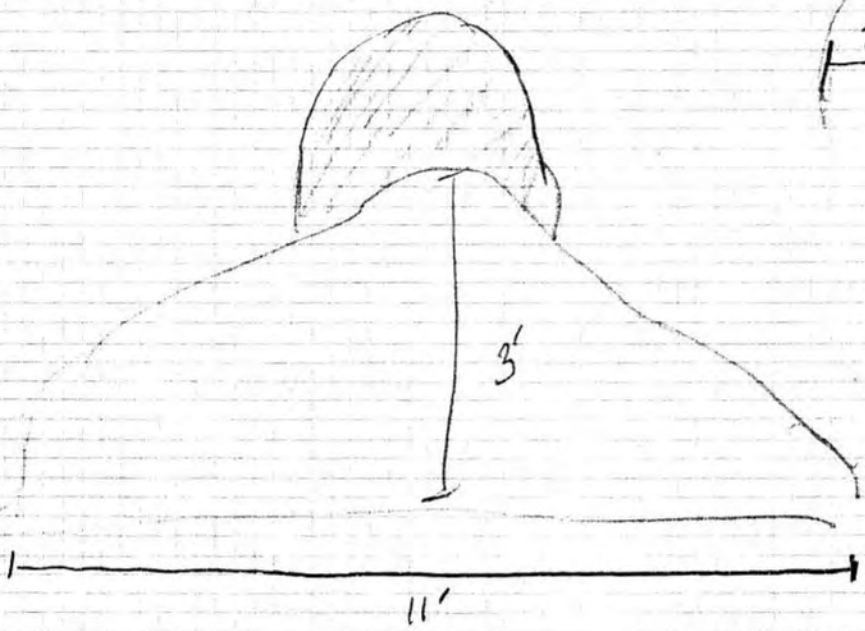
Den face entrance:
55° magnetic

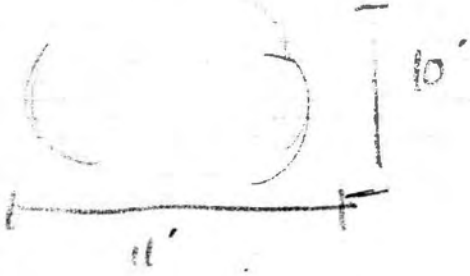
Location ~ 400m from River crossing #5
70.40357
150.86889

2° Excavation
off CD3 runway
30 Mar 06

#42 on GPS
den entrance
340°







Polar bear tracks from CD3 den

30 Mar 06

Cub A (bigger)

back paw 4" x 3 3/4"

front 2 1/2" x 2 1/2"

Cub B (smaller)

back paw 3" (l) x 2" (w)

9 paws

front 0.44" (w) x 0.38" (l)

back 0.53" x 0.75"

ConocoPhillips

POLAR BEAR AVOIDANCE

and

HUMAN ENCOUNTER/INTERACTION PLAN

November 2006

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Appendix A Polar Bear Regulatory History, History of Takes, and Subsistence Activities

ATTACHMENTS

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ACRONYMS

AAC	Alaska Administrative Code
ADEC	Alaska Department of Environmental Conservation
ADF&G	Alaska Department of Fish and Game
ADNR	Alaska Department of Natural Resources
AOGA	Alaska Oil and Gas Association
BLM	Bureau of Land Management
CFR	Code of Federal Regulations
CPAI	ConocoPhillips Alaska, Inc.
DEW	Distant Early Warning
ESA	Endangered Species Act
FEC	Field Environmental Compliance
FR	Federal Register
HSE	Health, Safety, and Environmental
LOA	Letter of Authorization
MMPA	Marine Mammal Protection Act
NSB	North Slope Borough
USACE	United States Army Corps of Engineers
USC	United States Code
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

DEFINITIONS

Designated Personnel – Individual specifically trained to perform certain functions.

Interaction – An encounter between a human and an animal that generates a negative response from the animal, such as aggression or fear.

1.0 PURPOSE AND SCOPE

The main purpose of this *Polar Bear Avoidance and Human Encounter/Interaction Plan* (Plan) is to provide guidance to ConocoPhillips Alaska, Inc. (CPAI) employees and contractors working in all of the company's oilfields on the North Slope, Alaska, in the event that polar bears (*Ursus maritimus*) or their dens are encountered during oilfield activities. Oilfield activities have the potential to disturb wildlife species. Some species that inhabit the North Slope, such as polar bears, present a serious risk of injury to field personnel. To protect the safety of personnel and polar bears, it is incumbent upon North Slope workers to avoid encounters with polar bears and their dens. Should such an encounter occur during work in the oilfields, this Plan provides guidance to manage an event in a manner that enhances personnel safety and minimizes bear disturbance.

The scope of this Plan includes discussion of: the training requirements for all CPAI employees and contract personnel working on the North Slope (Section 2.0), the distribution of polar bears on the North Slope (Section 3.0), roles and responsibilities of key personnel (Section 4.0), procedures for avoiding and detecting polar bears (Section 5.0), and the polar bear alert system, deterrence, and reporting methods (Section 6.0). The regulatory history of polar bears in Alaska, the associated authorizations from federal agencies, the history of polar bear 'takes' and subsistence activities are provided in Appendix A.

This Plan serves to facilitate compliance with existing polar bear regulations and permit conditions and is part of CPAI's overall wildlife management program. This Plan has been prepared as a separate document from CPAI's *Wildlife Avoidance and Interaction Plan* (CPAI, 2006), due to the federal protection afforded polar bears. Amendments to the *Wildlife Avoidance and Interaction Plan* will be written as needed for new developments with site-specific considerations and may include additional polar bear avoidance and interaction procedures for those areas, depending on their location with respect to the coast.

Table 1 lists the documents and information sources included in CPAI's wildlife management program that pertain to polar bears.

Table 1 Wildlife Management Program Documents for Polar Bears

Document/Information Source	Pertinent Information
Polar Bear Avoidance and Human Encounter/Interaction Plan (this document)	• Polar bear avoidance and detection techniques • Background and history of polar bears on the North Slope • Guidance for complying with polar bear regulations and permit conditions • Procedures for submitting sighting/activity reports • Polar bear training program

Polar Bear Management Training Course Materials	• Consequences of increased polar bear presence • Prevention of polar bear attraction including proper food and waste handling and disposal techniques • Methods for reducing artificial denning sites
Waste Management Certification Training Program (presentation)	• Summary of CPAI's approved waste management practices as detailed in the Alaska Waste Disposal and Reuse Guide
Alaska Waste Disposal and Reuse Guide	• Comprehensive set of "best" waste management practices including proper handling and disposal of food waste to prevent access by wildlife
North Slope Environmental Field Handbook	• Summary of North Slope wildlife interaction policies and related topics such as garbage control, worker safety, and wildlife habitat protection • Summary of the occurrence and behavior of common North Slope species • Summary of approved waste management practices including use of proper wildlife-proof dumpsters
Employee Awareness Tools	• CPAI contractor safety meetings (e.g., pre-spud, daily tailgate, etc.) • Environmental alerts (e.g., wildlife sightings, etc.)

2.0 TRAINING REQUIREMENTS

All CPAI and contractor personnel working in the field during the period of time when polar bears might be present (spring and fall) will receive an environmental orientation before beginning work tasks in project areas or annually if on permanent North Slope assignment. A major feature of the orientation will consist of viewing "Polar Bears: A Guide to Safety, Practical Advice on Human Safety Around Polar Bears", a video that has recently been prepared by a consortium of agencies. CPAI personnel are also required to take an on-line course entitled "Polar Bear Awareness." Site-specific instructions tailored to the type of activity will also be given to the project team.

Field Environmental Compliance (FEC) staff regularly attends CPAI and contractor safety meetings, and the CPAI Drilling Department's pre-spud meetings to reinforce the importance of proper food management to deter attraction of predator species, including polar bears, to our facilities.

Annual general awareness training will be given to all personnel in the oilfields using environmental alerts and updates, safety bulletins, safety meetings, and other methods as appropriate. Selected personnel are required to attend a Deterrence Training Program approved by the Alaska Department of Fish and Game (ADF&G) and the U.S. Fish and Wildlife Service (USFWS). The class consists of 1) three hours of classroom information covering polar bear behavior, biology, and hazing techniques; and 2) hands-on hazing and deterrence techniques using actual equipment.

3.0 DISTRIBUTION OF POLAR BEARS ON THE NORTH SLOPE

The Beaufort Sea region is historical polar bear habitat. Polar bears have been sighted in the area since the initial development of the Distant Early Warning (DEW) Line site at Oliktok Point in the 1950s. Polar bears are present in the Beaufort Sea year round. They make a seasonal shift away from land as the landfast ice melts every summer. The Beaufort Sea stock has increased in number at an estimated annual rate of two

percent or more during the past three decades (Amstrup et al., 2001). The 2006 Beaufort stock population estimated is approximately 1,526 animals (Regehr et. al., 2006).

During late autumn to spring, polar bears are distributed widely, occurring on pack ice, landfast ice, and land. They are most abundant in the active thaw zone, where ringed seals, their principal prey, are most available (Burns et al., 2001). During the open-water season, polar bears are usually associated with the pack ice, although they could be seen on land or swimming in open water at considerable distances from the ice. As pack ice comes closer to the coast during autumn, polar bears commonly swim ashore and scavenge beach cast carcasses or the remains of bowhead whales taken by subsistence hunters (Kalxdorff and Proffitt, 2003).

Polar bears are most likely to encounter humans on the Beaufort Sea coastline during the fall (late August to mid-October) and spring (March to May) periods of the year, when bears are found on the land-fast ice and along the coastline (Perham, 2005).

Unlike other bears, males and non-pregnant female polar bears are active all winter. Pregnant females make maternal dens in deep snowdrifts during late October to early November (Durner et al., 2003; Amstrup and Gardner, 1994). Between spring 1982 and spring 2003, 186 maternal dens were discovered between 137°W and 167°W longitudes. Of those, 52 percent were on land or landfast ice and 48 percent were on pack ice (United States Geological Survey [USGS], 2002). Historically, polar bears have denned in the Colville River Delta region in low numbers. The USFWS maintains records of historical den locations and the den locations change annually.

Female polar bears produce one or two cubs, usually two, that are born in dens from December to January. The mothers and their cubs emerge from maternal dens from late March to early April, and those that were on land typically head to the sea (Amstrup, 2000).

4.0 ROLES AND RESPONSIBILITIES

The key personnel and their responsibilities with regard to CPAI's general wildlife management program are as follows:

Environmental Studies Program Manager – Manages the overall environmental studies program.

Environmental Scientist – Manages the environmental studies contractors, reviews plans and reports.

Environmental Studies Coordinator – Manages field logistics for all biological and wildlife studies for CPAI.

North Slope Health, Safety, and Environmental (HSE) Training Supervisor – Supervises health, safety, environment, and training on the North Slope.

Field Environmental Coordinator – Oversees spill prevention, reporting, and cleanup; coordinates tundra travel, waste management, wildlife interaction, and environmental management systems.

Alaska Clean Seas Technicians – Oversees wildlife hazing, capture, and stabilization during an oil spill response.

Security – Responsible for wildlife hazing and monitoring during routine oilfield operations in oilfields. Security responds to wildlife sighting and interaction reports as appropriate.

All Personnel – Responsible for participating in wildlife interaction and management training. All personnel *must*:

- Have completed the polar bear training requirements for all CPAI employees, contractor personnel, and unescorted visitors prior to their work in the North Slope oilfields. Refer to Section 2.0 of this Plan for a description of the training requirements.
- Review Section 6 of the *North Slope Environmental Handbook* and comply with CPAI policy regarding wildlife.
- Immediately report polar bear interactions to Security, their Supervisor, or the FEC.

Updates to this Plan will be provided by CPAI on an as-needed basis. This document and all other wildlife interaction documents are maintained on the Environmental Studies website at CPAI Anchorage. Copies of these plans are provided to the environmental coordinators.

5.0 POLAR BEAR EARLY DETECTION AND AVOIDANCE PROCEDURES

Early detection and avoidance procedures for polar bears are generally the same for all of the oilfield activities. Many of these procedures fulfill the requirements of the regulations, policies, and permits listed in Appendix A, Section 1.0. While human safety is the top priority, it must be emphasized that early detection and avoidance procedures are designed to prevent encounters that might also result in harm to a polar bear.

It is the responsibility of each worker to be aware of their surroundings and inspect the work area before leaving a vehicle or building. All CPAI and contractor field personnel should understand and follow the detection and avoidance procedures outlined below.

- Outdoor working personnel must arrange with their Supervisor to maintain either radio or visual contact with security so that they can be immediately alerted to select a secure place in the event a polar bear is sighted.
- Personnel with work assignments that require they be outside of areas secure from polar bears (buildings, heavy equipment cabs, etc.) must check directly with

their Supervisor for the latest report as to whether bears or bear sign have been reported.

- All personnel will use the buddy system when working outdoors, and if necessary, designate a polar bear guard to stand watch.
- Truck drivers should sweep their headlights around pump areas or use portable light plants to look for polar bears before exiting their trucks.
- If possible, personnel should park their vehicles at a well house for a speedy exit if a polar bear is sighted.
- Heavy equipment operators (using fork lifts, loaders, etc.) working from inside protective vehicle cabs are well situated to visually detect and sound the alert in the event a polar bear is discovered within the site.
- Personnel should check behind doors prior to exiting stairs, access areas, and under structures to be sure no bears are present before moving to or from these areas.
- Beyond the illuminated drill site pad areas all personnel must exercise special alertness if conditions are dark and there is poor visibility.
- Notify Security of all polar bear sightings (see Section 6.0 for details).

5.1 Infrastructure Design and Maintenance

Infrastructure associated with oilfield development can potentially provide denning cover for polar bears. Following are some examples of infrastructure design and maintenance activities that can help minimize the attraction of polar bears:

- The design of the infrastructure of any site should incorporate modifications to reduce the attractiveness of the site to bears (e.g., installation of skirting under elevated buildings, visual aides such as mirrors, proper lighting, capping of all pipes, blocking culverts in the winter, and placement of gates or other barriers on stairwells).
- Elevated structures, including roads and pads, can collect drifting snow that can serve as artificial denning habitat if not properly managed. The prevailing wind is from the northeast and the direction of drifting should be taken into account when placing barriers or storing materials.
- If materials must be stored outdoors, they should be arranged either very close together or very wide apart to minimize the space where bears could hide.
- Personnel areas, including all entrance areas, will be illuminated during working hours of darkness.

5.2 Handling Food Materials and Waste

Particular care will be taken to ensure that no food wastes are left in places that might attract polar bears. Taking food into vehicles is discouraged, but if food must be taken into vehicles, it must be stored in containers that minimize odors, such as plastic bags or plastic containers with lids. All food waste will be brought back to the appropriate disposal receptacle and all garbage, including used food containers, will be removed from the vehicles at the end of each shift.

The cleanliness of the project area will be strictly maintained and eating outside buildings or vehicles will be prohibited. Food waste disposal practices will be geared to ensure that no bear attractants are present and will be conducted in accordance with CPAI's food waste handling procedures.

5.3 Handling Non-Food Materials and Waste

Although the main food sources of polar bears are marine mammals such as seals, non-food materials (e.g., plastic, rubber, motor oil, and chemicals such as antifreeze) have proven to be attractive to bears in the past, and if these materials are not handled properly, they can increase the likelihood of polar bear encounters. An incident occurred in 1987-1988 at Leavitt Island where a polar bear apparently ingested ethylene glycol, which resulted in its death (Amstrup et al., 1989). Potentially harmful materials will be stored in secure containers (e.g., 55-gallon steel drums) or inside secure buildings and they will be properly disposed of away from the project area.

5.4 Den Avoidance

Avoidance of active maternal denning locations will be standard operating procedure during winter work and travel activities. Den selection normally occurs during October or November and the USGS' Alaska Science Center biologists conduct aerial surveys in December to identify den locations of collared females. These data are typically provided to CPAI HSE personnel in advance of winter tundra activities; however these data only address those bears outfitted with satellite transmitters. The USFWS mandates that a one-mile buffer be placed around known maternal dens to limit disturbances to the sow and cub(s) caused by activity, thus:

> **Should occupied dens be identified within one mile of activities, work in the immediate area will cease and USFWS will be contacted for guidance.**

The purpose of this activity is to avoid any disturbance that might cause a sow to abandon her den early, thus exposing recently born cubs to possible harm before they are physically ready to leave the den. Polar bear sows typically emerge from their dens with their cubs in early to mid-March and may remain in the area for up to one week prior to moving to the Beaufort sea icepack.

6.0 POLAR BEAR ALERT SYSTEM, DETERRENCE, AND REPORTING

The Notification Flow Chart (Attachment 1) lists the actions to be taken when: a) a polar bear is sighted; b) a bear remains in the area; and c) a lethal take occurs. Also included in Attachment 1 are the appropriate contact persons and their contact information. Actual polar bear sightings will be recorded on a *Polar Bear Activity/Sighting Form* (Attachment 2).

6.1 Polar Bear Alert System and Reporting

The primary source of polar bear sighting information will come from personnel conducting routine activities in the oilfields. A team member may be designated as a Polar Bear Watch if warranted by the project location. The Polar Bear Watch will receive specific training in bear detection and avoidance procedures. Should a bear or bear sign (e.g., tracks or scat) be discovered within the vicinity of work areas, camp buildings, or storage locations, the observer must immediately report the sighting to their Supervisor or Security once refuge has been sought in a secure location. Personnel should not remain in an exposed position in order to view the bear. No one should attempt to photograph a sighted bear from an exposed location.

Security will initiate the alert system, which is provided by radio contact (personnel working outside will carry hand-held portable radios). All personnel will be alerted to go immediately to pre-identified secure areas. Secure areas include buildings (except for warm-up shacks and other light structures) and cabs of large trucks or other heavy equipment. If only a pickup or other similar size vehicle is available, personnel should drive the vehicle at least 50 yards away from the bear and keep the engine running while observing the bear's behavior.

The alert will consist of voice communication, which will provide specifics on the location of the bear, instructions for who must evacuate, and evacuation instructions. The presence of a bear(s) will be announced to all personnel in this fashion so that appropriate avoidance measures are taken. Only when it has been determined by subsequent inspection that bears are no longer present in the work vicinity will the alert be lifted.

Security will verify the polar bear sighting and complete a *Polar Bear Activity/Sighting Form* and submit it to FEC, who then faxes the completed form to: Steve Amstrup (USGS, polar bear biologist), Craig Perham (USFWS, Marine Mammals Management Section), and Dick Shideler (ADF&G, grizzly bear biologist). Security should contact CPAI's FECs for any questions concerning completion of the form. An example of how to complete the "encounter description" section of the form would be: "Sighted two polar bears approximately 500 yards WSW of location walking in a NW direction. Stopped to sniff air three times, but otherwise ignored operations." An annual polar bear observance monitoring report will be submitted by the appropriate FEC staff, to Mr. Perham by January 15 at 1011 E. Tudor Road, Anchorage, AK 99503.

If a designated Polar Bear Watch is on duty when a bear is sighted, that person will be responsible for filling out the *Polar Bear Activity/Sighting Form* (instead of Security) and

will also be required to keep a journal of all polar bear sightings. Two separate records are kept so that the data can be cross-checked in the data quality control process. The journal should include a record of time spent undertaking polar bear observations and documentation of sightings of bears or bear sign.

6.2 Polar Bear Deterrence and Reporting

Neither the Polar Bear Watch nor other project personnel should attempt to undertake hazing or harassment actions to scare the bear(s) away from work areas. If active deterrence is necessary, Security personnel trained in these measures will perform the action. Whenever possible, Security should notify FEC in advance of any polar bear hazing or deterrent activities. Pre-notification would not be feasible in a situation where deterrence is required immediately for the protection of personnel or bears. Security staff will prepare a report on the deterrence activities, including a short narrative that describes the incident and actions taken. The narrative can be hand-written and must be attached to the *Polar Bear Activity/Sighting Form*. Polar bear harassment/hazing events are to be reported via fax to Mr. Perham at the USFWS and Mr. Shideler at ADF&G within 24 hours. Records are to be maintained by Security and submitted to FEC.

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Appendix A

Polar Bear Regulations, History of Takes, and Subsistence Activities

A1.0 REGULATIONS, POLICIES, AND PERMIT STIPULATIONS

Several regulatory requirements, permits, and CPAI policies are applicable to the wildlife management program. The ones pertinent to polar bears are discussed in this Plan. These include, but are not limited to:

Applicable State Regulations

- 18 Alaska Administrative Code (AAC) 60.010 – Treatment of solid waste
- 5 AAC 92.230 – Prohibition of baiting and feeding bears and other wild game
- ADF&G's Policy on Human Food and Solid Waste Management and Bears in Alaska
- Armed Guard License (Security guards only)

Applicable Federal Regulations

- Marine Mammal Protection Act (MMPA) (16 USC 1361-1407)
- 50 Code of Federal Regulations (CFR) 18 (implements the MMPA)

CPAI Policy

- Non-Interference Policy, Section 6 of the *North Slope Environmental Field Handbook*
- CPAI FEC Standard Operating Procedures
- Permits and other approvals that may contain stipulations for polar bears
- United States Army Corps of Engineers (USACE) Permits (i.e. Section 404 permits, issued by USACE)
- Land Use Permits (usually issued by Alaska Department of Natural Resources [ADNR] and North Slope Borough [NSB])
- Pipeline right-of-way permits
- Ice road construction/winter vehicle travel (usually issued by ADNR, ADF&G, and the Bureau of Land Management [BLM])
- Tundra Travel (issued by ADNR, NSB, and BLM)
- Waste Management Guidelines (issued by Alaska Department of Environmental Conservation [ADEC])
- Oil Spill Response (typically issued by ADF&G, ADEC, and/or USFWS)
- Hazing Permits (issued by USFWS)
- Letters of Authorization (LOA) (issued by the USFWS)
- Lease stipulations (issued by ADNR and BLM)

Polar bears are a USFWS trust species protected by the 1972 MMPA as amended November 2001 (16 USC 1361-1407). The MMPA explicitly states that it is illegal to

"harass, injure, capture, kill, or to attempt to harass, injure, capture, or kill" a marine mammal. The term used to describe any of these activities is "take". However, Section 101(a)(5)(A) of the MMPA includes an exception to the law by authorizing the issuance of regulations to allow the incidental, but not intentional, taking of small numbers of marine mammals, upon request (as defined in 50 CFR 18.27(c)) for a specified activity (other than commercial fishing) in a specified geographic region. Refer to Appendix A for a discussion of LOAs and conditions for a legal "take".

The polar bear is not listed under the Endangered Species Act (ESA). However, a petition was filed with the Secretary of the Interior in February 2005 to list the polar bear as threatened under the ESA, based on the loss of sea-ice habitat. The USFWS is currently conducting a status review of the polar bear in response to this petition.

A2.0 AUTHORIZATIONS FOR TAKE

As allowed by the MMPA, the USFWS publishes in the Federal Register (FR) the regulations that allow for the incidental, unintentional take of polar bears during certain activities, such as oil and gas activities. These regulations set forth permissible methods of take and requirements for reporting and monitoring. Although not required by law, the oil and gas industry operators submit petitions to USFWS for renewal of published regulations every five years or so. Every three to five years and prior to the issuance of such regulations, the USFWS must complete an assessment of oil and gas development impacts on polar bears (Perham, 2005).

On November 16, 1993, the USFWS published final regulations (58 FR 60402) authorizing the incidental, unintentional take of small numbers of polar bears and walrus during oil and gas industry operations year round in the Beaufort Sea and the adjacent northern coast of Alaska. Since publication, these regulations have been continuously re-issued and extended. The most recent regulations were issued in response to a request submitted by the Alaska Oil and Gas Association (AOGA) on August 23, 2002, originally projected to be from March 31, 2003 through March 31, 2008.

Effective August 2, 2006 through August 2, 2011, Part 18 of 50 CFR was revised by adding a new Subpart J, which allowed for the non-lethal incidental take of small numbers of polar bears during year-round oil and gas exploration, development, and production activities on the North Slope.

A2.1 Letter of Authorization

Oil and gas operators submit letters to USFWS requesting an incidental take exemption to conduct specified activities (e.g., exploration, development, and production) in a development or production area (Perham, 2005). If the USFWS approves of the activities, they will issue an LOA to the applicant. LOAs prescribe specific stipulations and monitoring requirements for each applicant and must be reviewed annually. One of the major requirements of an LOA is that the applicant has a current polar bear interaction plan. CPAI applies for two types of LOAs: unintentional and intentional take.

A2.1.1 Letter of Authorization for Unintentional Take

The USFWS may issue an LOA for unintentional take under the provisions of incidental take regulations, petitioned for by the oil and gas industry. An LOA will typically include the following conditions:

- Follow all provisions in the polar bear interaction plan. This LOA is valid only for the activities and locations identified in the most recent petition by industry for regulations governing unintentional take. These are intended to cover exploration activities which generally move locations annually and must re-apply for coverage each year.
- Operations crew managers must be fully aware, understand, and be capable of implementing the conditions of the authorization.
- Intentional take is not authorized by this LOA. Intentional harassment is granted through a separate authorization from the USFWS each year (see below).
- Activities will not operate or pass within one mile of known polar bear dens, and all observed dens will be reported to the Marine Mammals Management Office, USFWS within 24 hours. The USFWS will evaluate these instances on a case-by-case basis to determine the appropriate action. Potential responses may range from cessation or modification of work to conducting additional monitoring.
- Polar bear monitoring, reporting, and survey activities will be conducted in accordance with 50 CFR 18 Section 18.128. An annual monitoring report of activities within CPAI's operating oilfields will be delivered to USFWS prior to January 15. The previous years' monitoring reports will be required before the LOA is valid for another year. The basic monitoring and reporting requirements are as follows:
    - Cooperate with USFWS, and other designated federal, state, or local agencies to monitor the impacts of oil and gas exploration activities on polar bears;
    - Designate a qualified individual to observe, record, and report the effects of the activity on polar bears;
    - At the discretion of USFWS, allow USFWS to place an observer on the site to monitor the impacts of the activity on polar bears; and
    - Submit a report to the Alaska Regional Director within 90 days after the completion of exploration activities.

Another authorization issued to North Slope operators by USFWS allows qualified individuals to "take" polar bears, by harassment (deterrence activities), while conducting oil and gas industry related activities in polar bear habitat. This authorization is granted annually by USFWS, in a letter issued by early January. The authorization applies only to operating fields.

- This authorization is restricted to deterrent activities.
- CPAI is responsible to ensure that designated personnel are adequately trained to conduct polar bear deterrent activities.

- Authorized personnel are responsible for reporting harassment or hazing events to USFWS as soon as possible and not later than 24 hours from the occurrence
- This authorization is for one calendar year and is renewed annually.

A3.0 HISTORY OF POLAR BEAR TAKES

It is vitally important that opportunities are reduced to an absolute minimum for accidental encounters between bears and project personnel that might result in a "take", including takes by harassment. Experience highlights this need. In the winter of 1968-1969, an industry employee on the Alaskan North Slope shot and killed a polar bear (Brooks et al., 1971). An incident occurred in 1987-1988 at Leavitt Island where a polar bear apparently ingested ethylene glycol, which resulted in its death (Amstrup et al., 1989). In 1990, a female polar bear was killed when it approached workers unloading Rolligons at Stinson exploration drill site on the west side of Camden Bay. In late 2005, workers at Cape Simpson shot and killed a polar bear wounded by a subsistence hunter. These are the only lethal takes that have occurred in the oilfields in the past 30 years. The detection and avoidance techniques described in this *Polar Bear Avoidance and Human Encounter/Interaction Plan* draw upon these incidents in an effort to prevent their recurrence during future oilfield activities.

A4.0 SUBSISTENCE ACTIVITIES

The polar bear is a subsistence resource available to Alaska Natives. Alaska Natives, in cooperation with Canadian Native hunters, have over the past few years developed a management plan to ensure that subsistence takes from this jointly shared Beaufort Sea polar bear population do not exceed biologically acceptable limits. There has also been a recent agreement with Russians for the Chukchi Sea bears. It is likely that a number of project team members, including CPAI personnel and contractor crews, will be Alaska Natives who, as subsistence hunters, might otherwise be authorized to take polar bears. However, Natives employed in these programs are governed by rules and procedures set out by CPAI, which extend to all employees. During periods of their active employment, when traveling to and from the project area, and during their active service for CPAI projects, no subsistence hunting is authorized. Should a Native project team member be assigned the task of Polar Bear Watch (Section 6.0) and, in the course of assigned duties be required to use deterrent measures including the use of firearms, such use is authorized only on the basis of status as a team member designated and trained (designated personnel) to carry out such measures and not because the team member might otherwise be entitled to subsistence hunting rights.

Attachment 1
Notification Flow Chart

POLAR BEAR SIGHTING

Observer reports sighting to Security by phone:
Alpine (907) 670-4900
Kuparuk (907) 659-7300

Security completes a *Polar Bear Activity/Sighting Form* and faxes report to FEC
(907) 659-7088

FEC faxes completed form to:
Steve Amstrup (USGS)
(907) 786-3636,
Craig Perham (USFWS)
(907) 786-3816,
and
Dick Shideler (ADF&G)
(907) 456-3091

POLAR BEAR REMAINS WITHIN WORK AREA

If active deterrence is necessary, trained **Security** personnel will be contacted to take action.

Security prepares report on the deterrence activities and provides report to FEC.

FEC submits report to Mr. Perham or Mr. Shideler.

Security notifies by phone:
Alpine FEC (CPAI)
(907) 670-4423
or
Kuparuk FEC (CPAI)
(907) 659-7212
that action has been taken.

LETHAL TAKE OF POLAR BEAR

Security will contact by phone:
Mr. Perham (USFWS):
Work: (907) 786-3810
Home: (907) 622-3214
or
USFWS Law Enforcement
1-800-858-7621

Security will record all details and witness accounts.

Security will protect entire bear carcass from scavengers and employees.

Security will transport entire bear carcass to Deadhorse, or as dictated by USFWS.

Attachment 2
Polar Bear Activity/Sighting Form

ConocoPhillips

Polar Bear Activity/Sighting Form

Activity/Sighting Date: _____ **Time:** _____

Location: _____

Total number of polar bears: _____Adult _____Sub adult _____Juveniles _____Cubs

Estimated distance of animal(s) from personnel/facility: _____ft/_____ft

Behavior: _____Curious _____Aggressive _____Predatory _____Other (explain): _____

_____

Description of encounter: _____

_____

_____

Duration of encounter: _____

Injuries sustained (personnel): _____

Injuries sustained (bear): _____

Deterrent(s) used: Vehicle _____ Noise-maker_____Firearms_____Other _____

_____

Weather conditions: _____Fog _____Snow _____Rain _____Clear, Wind speed: _____ mph

Wind direction: _____ Approx. temperature: _____°F / °C, Maximum visibility: _____ft

Possible attractants present: _____

_____

Observer name: _____

Recorded by: _____ **Date:** _____ **Time:** _____

Printed Name

_____

Signature

Agency/ConocoPhillips Contacts:

USFWS: _____ Time: _____ Date: _____

ADF&G: _____ Time: _____ Date: _____

Client: _____ Time: _____ Date: _____

CPAI: _____ Time: _____ Date: _____

For Additional Information, contact Caryn Rea (907) 265-6515 or Sally Rothwell (907) 265-6064

Fax Completed Reports to Field Environmental Compliance (907) 659-7088

"St.Pierre, Bruce"
<Bruce.ST.PIERRE@conocophillips.com>
12/05/2006 03:19 PM

To <craig_perham@fws.gov>
cc "Charton, Jason T." <Jason.T.Charton@conocophillips.com>
bcc
Subject Exploration - Plans of Cooperation

Craig:

Happy Holidays...

CPAI conducted a series of village visits to communicate our 06/07 Exploration plans on the North Slope. We have a few more villages to visit by the end of this year. This year's exploration program includes six prospect locations; Intrepid, Noatak, Nugget, Cassin, Spark DD and Makua. We expect to only be able to drill Intrepid and Noatak this winter. We will permit the others to allow flexibility and future drilling.

Village visits:
Oct. 10 - Nuiqsut
Oct. 11 - Aqusak
Oct. 12 - Anaktuvuk Pass
Oct. 19 & Nov. 9th - Barrow
Dec. 12 - Wainwright (planned)
Dec. 13 - Pt. Lay (planned)
Dec. 20 - Pt. Hope (TBD)

In each meeting CPAI gave a presentation of the proposed plans for this coming winter exploration season. We also discussed village concerns and subsistence issues. I conduct the meetings, and always ask if our activities will impact subsistence in the area, and if they have concerns, what ways we can we mitigate the potential impacts.

One concern that came up again this year, had to do with exploration activity and the potential for it to cause displacement of subsistence activities. Hunters may be forced to go further away from their normal areas due to added activity. Even though winter hunting and fishing is not as prevalent as in the summer, we offered to mitigate this by giving away fuel for those who have cabins or allotments near the exploration activity. We are still working the details for this mitigation plan.

CPAI also will continue to work with the job center and our contractors to provide local opportunities for jobs during the projects. We will be hiring subsistence representatives to coordinate with the local hunters to assure that they have access to their traditional areas. We will be submitting an Economic Opportunity Plan. These are all components of the permitting process and our plan of cooperation.

Call if you have any other questions.

Bruce

Report of polar bear denning habitat FLIR survey for Colville River (CD-3 and Makua) and Kuparuk River (Sak River Exploration program) industrial sites

US Fish and Wildlife Service
January 2007

Introduction

On December 18, 2006 ConocoPhillips (CPAI) and Brook Range Petroleum Corporation (Brooks Range) conducted a Forward Looking Infrared (FLIR) survey along the proposed industrial sites to identify any potential polar bear dens within the project areas (see attached map). This survey was a stipulation for 3 Letters of Authorization (LOAs) issued by the U.S. Fish and Wildlife Service (USFWS); two for CPAI (LOAs 06-03 and 06-15) and one for Brooks Range (LOA 06-17), to incidentally take polar bears during industrial activities. The survey areas included Colville River (for Makua and CD-3) for CPAI and the mouth of the Kuparuk River (Sak River Exploration Program) for Brooks Range.

Methodology

The survey was conducted using the ConocoPhillips Twin Otter. Survey time was approximately 3 hours (1940 – 2230). Pilots on the flight were Walt Remele and Andy Fowler. The FLIR technician on the flight was Peter Bjonstad. Craig Perham, USFWS, and Geoff York, USGS, were on the flight as observers. The FLIR survey investigated den habitat within a 2-mile envelope around the drilling pad sites and a 1-mile envelope along the ice road corridors. The polar bear denning habitat was generated from 89 Interferometric Synthetic Aperture Radar (IFSAR) data digital terrain models (DTM) for the NPRA region by the USGS. Two replicates of the survey were performed along the route. The first replicate was flown at 100 feet and 90 knots, while the second survey replicate was flown at 600 feet and 90 knots. This allowed for multiple coverage of the habitat and allowed the observers to inspect any potential heat signatures in finer detail.

Results

A FLIR survey was performed on the mouth of the Kuparuk River by Shared Services personnel on December 16, 2006. No maternal polar bear dens were observed; however, 3 heat signatures were detected upon tape review. To verify heat signatures, a second survey was conducted on December 18, 2006 (Figure 1).

No polar bear dens were identified during this survey within the defined survey areas on the Colville River or the mouth of the Kuparuk River. However, four polar bear dens were located in the vicinity of the Jones Island group. One den was located on Pingok Island, One den was located on Cottle Island and two dens were located on the Staging Pad, on the mainland coast between Beechey and Kavearak points (Figure 4). All four of these dens, including an additional known den of a radio-collared polar bear on Pingok Island were outside of the industrial areas of both projects and mitigation measures from either company are not required to mitigate impacts to these dens.

Comments Regarding the FLIR Survey

Apart from the pilots and the FLIR operators, one of the best assets that the Twin Otter has for FLIR surveying of polar bear dens is the new Star III FLIR unit. This was evidenced by the viewing of the bear located on the Staging Pad. We were able to observe her from a distance and maintain excellent coverage on her throughout the observation period. With the ease of its laser-guided camera it has become the most accurate aerial FLIR platform to date.

In addition, the use of the lap-top computer with the on-screen mapping software (MapInfo) and the GPS program used to monitor the plane's real-time location. Not only does this system help the FLIR operators set up the subsequent survey run of bluff habitat by knowing the plane's present location, it will allow USFWS coverages, such as transects, known dens, and suitable habitat, to be incorporated into the real-time map. This compatibility of programs continues to ease the information transfer between USFWS and CPAI when planning future surveys and will improve the den detection process.

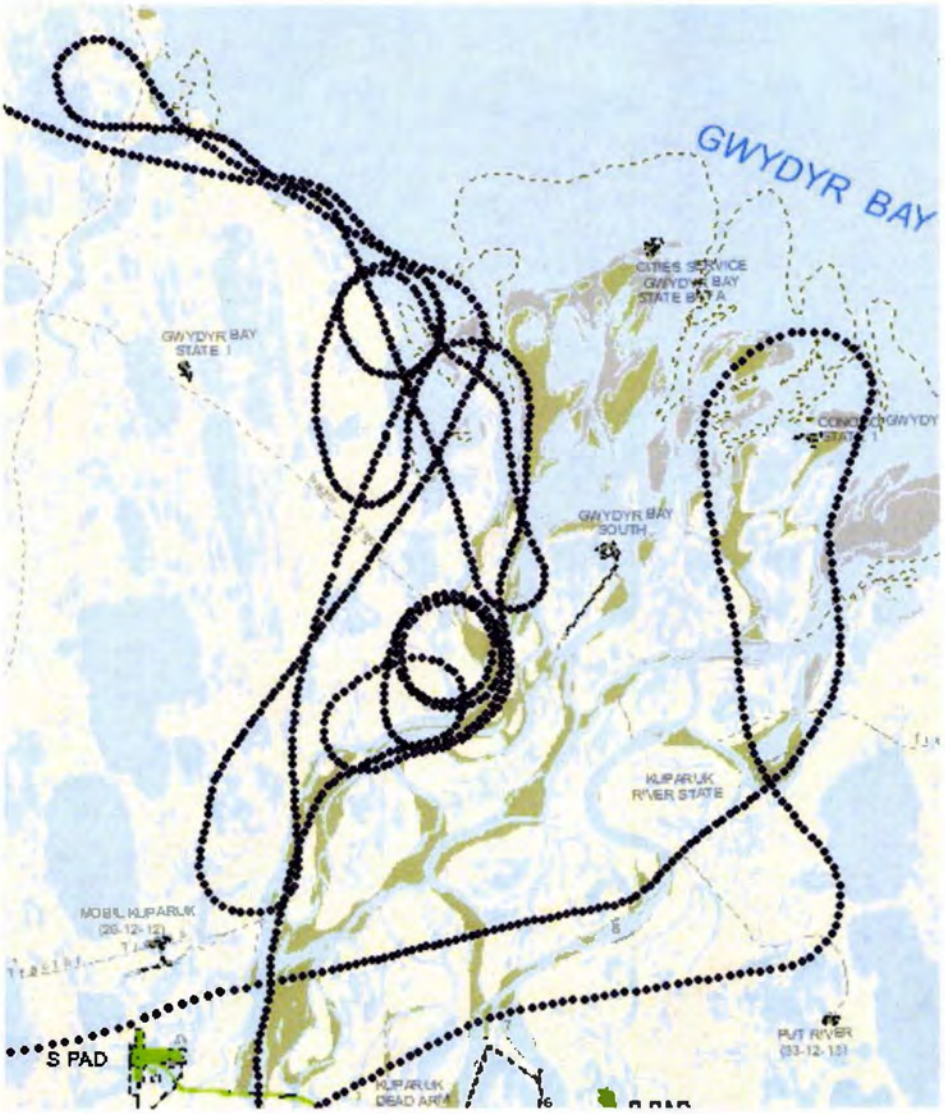

Figure 1. FLIR survey to detect maternal polar bear dens conducted on December 18, 2006, at the mouth of the Kuparuk River for Brooks Range Petroleum Corporation.

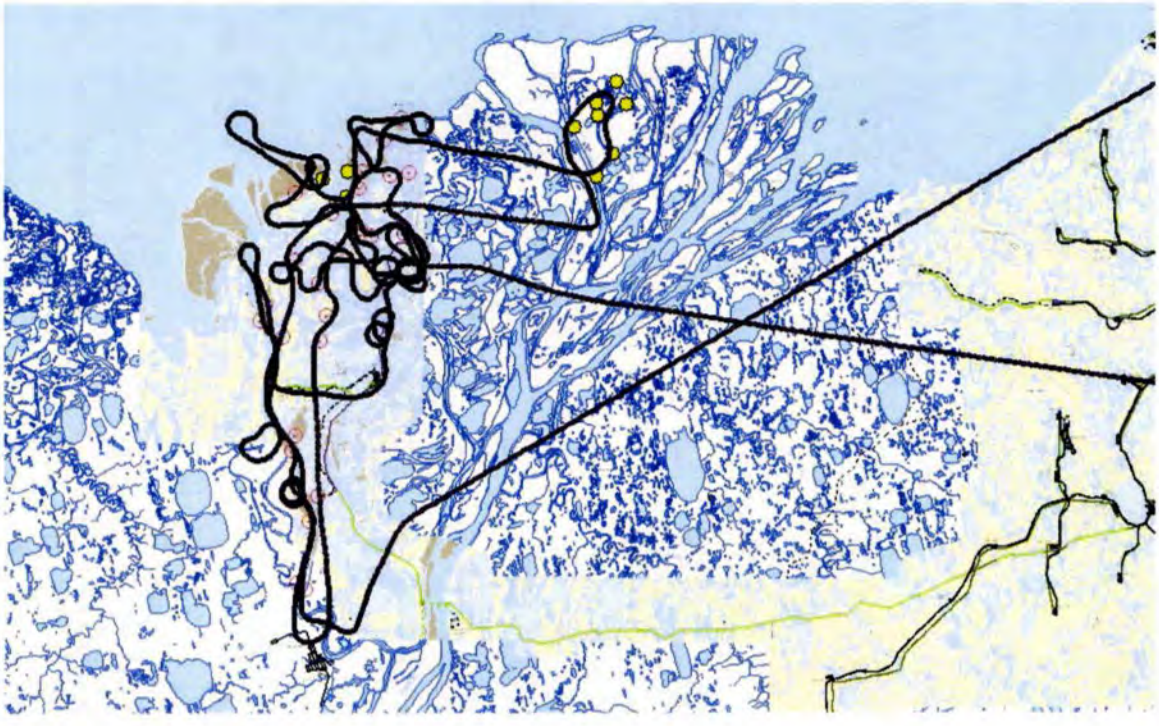

Figure 2. FLIR survey to detect maternal polar bear dens conducted on December 18, 2006, at the Colville River delta for ConocoPhillips Alaska, Inc.

Figure 3. Maternal polar bear den on the Staging Pad, December 18, 2006.

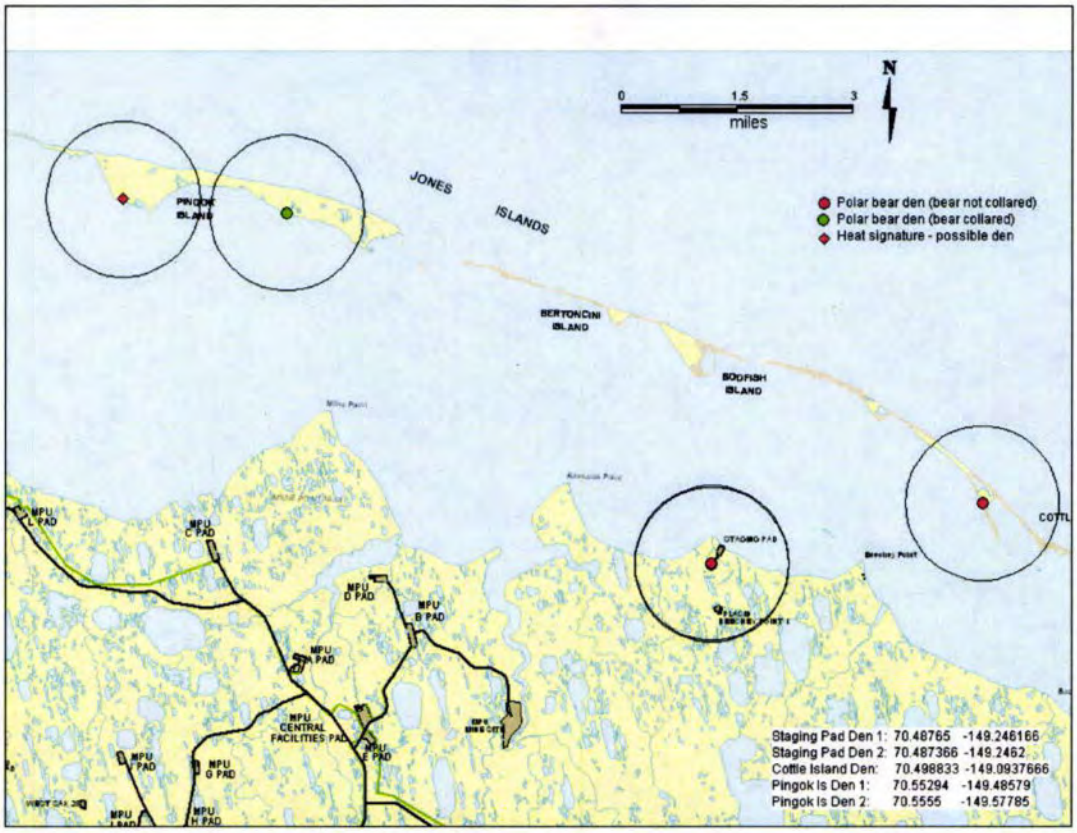

Figure 4. Known polar bear dens in the nearshore area of the Jones Island group and Milne Point, 2006-2007 with 1-mile exclusion zones (WGS84).

ConocoPhillips

Caryn L. Rea
Senior Staff Biologist
ConocoPhillips Alaska
700 G Street, ATO 1902
P.O. Box 100360
Anchorage, AK 99510-0360

Phone: (907) 265-6515
Fax: (907) 265-6216
Email: Caryn.Rea@conocophillips.com

August 15, 2006

Ms. Rosa Meehan, PhD
Chief, Marine Mammal Management
U.S. Fish and Wildlife Service
1011 West Tudor Road
Anchorage, AK 99503-6199

Re: Request for Letter of Authorization
Incidental Take of Polar Bear and Pacific Walrus
Oil and Gas Operations for ConocoPhillips Alaska in the Greater Kuparuk Area and Alpine

Dear Dr. Meehan:

Pursuant to 50 CFR 18, Subpart J (amended August 2, 2006), and Section 101 (a) (5) of the Marine Mammal Protection Act (MMPA), 16 U.S.C. § 1371(a) (5), ConocoPhillips Alaska, Inc. (CPAI) requests a Letter of Authorization (LOA) allowing the non-lethal take of polar bears and walrus incidental to our oil and gas operations in the Greater Kuparuk Area and Alpine.

We do not anticipate that our operations will result in any 'take' of polar bears or walrus within the meaning of the MMPA or U.S. Fish and Wildlife Service regulations promulgated thereunder. Our LOA request is submitted for the purpose of ensuring that ConocoPhillips Alaska is in compliance with applicable statutory and regulatory requirements in the unlikely event that a 'take' should occur as a result of our operations. A revised Polar Bear Avoidance and Interaction Plan is being prepared in consultation with Mr. Craig Perham from your office and will be submitted shortly.

Please feel free to contact me at 265-6515 with any questions concerning this request.

Sincerely,

Caryn L. Rea
Sr. Staff Biologist

cc: Scott Shliebe, USFWS
Craig Perham, USFWS

Craig
Scott

ConocoPhillips

Caryn L. Rea
Senior Staff Biologist
ConocoPhillips Alaska
700 G Street, ATO 1902
P.O. Box 100360
Anchorage, AK 99510-0360

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1011 West Tudor Road
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Sincerely,

Caryn L. Rea
Sr. Staff Biologist

cc: Scott Shliebe, USFWS
Craig Perham, USFWS

23 2006

ConocoPhillips

Caryn L. Rea
Senior Staff Biologist
ConocoPhillips Alaska
700 G Street, ATO 1902
P.O. Box 100360
Anchorage, AK 99510-0360

Phone: (907) 265-6515
Fax: (907) 265-6216
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Please feel free to contact me at 265-6515 with any questions concerning this request.

Sincerely,

Caryn L. Rea
Sr. Staff Biologist

cc: Scott Shliebe, USFWS
Craig Perham, USFWS

Sally Rothwell
Environmental Scientist
ConocoPhillips Alaska
700 G Street, ATO 1996
P.O. Box 100360
Anchorage, AK 99510-0360

Phone: (907) 265-6064
Fax: (907) 265-6216
Email: sally.a.rothwell@conocophillips.com

November 21, 2006

NOV 27

Mr. Craig Perham
United States Department of the Interior
Fish and Wildlife Service
1011 E. Tudor Rd.
Anchorage, AK 99503-6199

Re: Polar Bear Avoidance and Human Encounter/Interaction Plan, November 2006 ConocoPhillips Alaska, Inc.

Dear Mr. Perham

Please find attached an updated version of the above-referenced plan. The intent of this document is to serve as the primary Plan for all of ConocoPhillips' operations, including exploration activities. Permit applications to be submitted to the USFWS will contain site-specific information about the location of activity, and where available, identification of potential polar bear habitat.

If you have any questions or concerns about this document, please give me a call at 265-6064, or Caryn Rea at 265-6515.

Sincerely,

Sally Rothwell
Environmental Scientist

Attachment: November 2006 Polar Bear Avoidance and Human Encounter/Interaction Plan

"Major, Mark A"
<Mark.A.Major@conocophillips.com>
12/08/2006 04:01 PM

To <Craig_Perham@fws.gov>
cc "Rothwell, Sally A" <Sally.A.Rothwell@conocophillips.com>, "ALP Env Coord Colegrove&Short" <n1508@conocophillips.com>, "ALP Env Coord
bcc
Subject Alpine LOA for Polar Bear Incidental Take

Hi Craig,
Please be advised that the new Alpine satellites, CD 3 and CD 4, are now on production. In view of this situation, they are now part of the Alpine operational facilities. Hence, CPAI believes that these 2 new drill sites are now covered by the letter of authorization for incidental take of polar bears in place for Alpine operational facilities. If you need a more formal notification of this situation, please let me know and such a document will be provided. Also, if you have any questions on this matter, please advise. Thanks!

Mark Major
ConocoPhillips Alaska, Inc.
265-6136

United States Department of the Interior

FISH AND WILDLIFE SERVICE
1011 E. Tudor Rd.
Anchorage, Alaska 99503-6199

OK-WM

POLAR BEAR SIGHTING REPORT

Date: 15 Oct 06

Time: 2150 – 2300

Location: Oliktok Pt. (STP) to DEW-line site

Observer name: Roy Outcelt

Weather conditions: Fog ____ Snow ____ Rain ____ Clear X Wind Speed Variable @ 2 knots

Wind direction N/A Approx. Temp 23°

Total number of bears: — Sow/cubs — / | Adult ____ Subadult ____

Estimated distance of bear from personnel/facility: 150m / 150m @ STP 50m from DEW line bldgs

Possible attractants present: None observed

Bear behavior: Curious ____ Aggressive ____ Predatory ____ Other X (evasive)

Description of encounter: bear swam along STP trying to evade spotlight. After several attempts to land, bear got onto beach and continued west until out of sight.

Injuries sustained: Personnel None

Polar bear None

Deterrents used/distance: Vehicle O Noise-maker O Firearms O

Other Spotlight (?)

Duration of encounter: 1:10

Agency/CLIENT Contacts;

USFWS _____ Time: ____ Date: ____

ADF&G _____ Time: ____ Date: ____

CLIENT _____ Time: ____ Date: ____

CLIENT representative: [signature] DS Security Officer Date: 15 Oct 06

ConocoPhillips
Alaska, Inc

Kuparuk Environmental
Fax: 907-659-7861
Phone: 907-659-7593

Date: 10/6/06

FAX :

Steve Amstrup	**786-3636**
Craig Perham	**786-3816**
Dick Schideler	**456-3091**

From: **NSK HEST Admin Assist, 659-7593**

Number of Pages: Cover + 1

Comments:

1 **Polar bear observation report(s) from** 10/6/06

FILE – 9.70a (Polar Bear)

United States Department of the Interior

FISH AND WILDLIFE SERVICE
1011 E. Tudor Rd.
Anchorage, Alaska 99503-6199

POLAR BEAR SIGHTING REPORT

Date: 10/6/06

Time: 4:25 AM

Location: OLIKTOK ROAD NEAR 3-R PAD

Observer name: BRUCE LESTER

Weather conditions: Fog ✓ Snow ✓ Rain ___ Clear ___ Wind Speed ___

Wind direction Calm Approx. Temp 30°F

Total number of bears: ___ Sow/cubs 1 Adult 1 Subadult ___

Estimated distance of bear from personnel/facility: 1 100 yards

Possible attractants present: None

Bear behavior: Curious ___ Aggressive ___ Predatory ___ Other ✓

Description of encounter: BEAR WAS reported on 3-R pad, and when I arrived it had moved off toward 3-Q and was out of sight. 15 minutes later bear was observed on road appeared to be traveling

Injuries sustained: Personnel ϕ

Polar bear ϕ

Deterrents used/distance: Vehicle ___ Noise-maker ___ Firearms ___

Other ___ Just observed

Duration of encounter: 15 minutes

Agency/CLIENT Contacts;

USFWS ___ Time: ___ Date: ___

ADF&G ___ Time: ___ Date: ___

CLIENT ___ Time: ___ Date: ___

CLIENT representative: Bruce Lester DUS Date: 10/6/06

See Back

bear appeared to be shambling, west to east. Tracks were observed at STP and 3-Romeo Pad.
When the bear was observed on road, it was shambling East and continued until at went out of sight.

ConocoPhillips
Alaska, Inc

Kuparuk Environmental
Fax: 907-659-7861
Phone: 907-659-7593

Date: 9/17/06

FAX : **Steve Amstrup** **786-3636**
Craig Perham **786-3816**
Dick Schideler **456-3091**

From: **NSK HEST Admin Assist, 659-7593**

Number of Pages: Cover + 1

Comments:

✓ **Polar bear observation report(s) from** 9/16/06

FILE – 9.70a (Polar Bear)

United States Department of the Interior

FISH AND WILDLIFE SERVICE
1011 E. Tudor Rd.
Anchorage, Alaska 99503-6199

POLAR BEAR SIGHTING REPORT

Date: 9-16-06

Time: 11:58 PM

Location: OLIKTOK POINT - 200 YDS NORTH OF DS-3R

Observer name: O. SIEGFRIED

Weather conditions: Fog ____ Snow ____ Rain ____ Clear ✓ Wind Speed 10 KNOTS

Wind direction W/SW Approx. Temp 40°F

Total number of bears: 2 Sow cubs 1 Adult ____ Subadult ____

Estimated distance of bear from personnel/facility: 30' - 150'

Possible attractants present: NONE

Bear behavior: Curious____ Aggressive ____ Predatory ____ Other X TRAVELING

Description of encounter: CROSSED OLIKTOK ROAD - DIRECTLY IN FRONT OF END DUMP / DUMP TRUCK TRAVELING TOWARDS STP. SOW + CUB CROSSED FROM EAST TO WEST / CROSSED BACK + CONTINUED EAST BOUND ALONG COAST.

Injuries sustained: Ø Personnel ____

Polar bear ____

Deterrents used/distance: Ø Vehicle ___ Noise-maker ___ Firearms ___

Other ____

Duration of encounter: 30 MINUTES.

Agency/CLIENT Contacts;

USFWS ____ Time: ____ Date: ____

ADF&G ____ Time: ____ Date: ____

CLIENT KUPARUK SECURITY + CPF-3 Time: 12 PM Date: 9-16-06

CLIENT representative: O. SIEGFRIED Date: 9-16-06

POLAR BEAR OBSERVATION LOG FOR MARCH 28, 2006

0813- ON LOCATION, NORTH END OF CD-3 AIRSTRIP.

0818- SPOTTED POLAR BEAR 5/8 (ORIGINALLY ESTIMATE AT 1 1/2 MILE NORTH OF AIR-STRIP. BEAR STANDING. BROADSIDE VIEW. TURNING BACK AND FORTH IN APPROXIMATE 20' CIRCLE. WEATHER- SKY CLEAR; INVERSION LAYER FROM SSW TO N TEMP-32 F; WINDCHILL -39; WIND AT 4 MPH FROM THE EAST.

0824- LAID DOWN.

0838- UP AND CIRCLING/BACK AND FORTH IN APPROXIMATE 20' AREA. BEGINS DIGGING WITH BOTH FOREPAWS.

0844- LAYS DOWN AND THEN GETS UP AND DOES CIRCLING/PACING IN APPROXIMATE 20' AREA.

0851- UP AND MOVING N. HAS AT LEAST 1 CUB POSSIBLY 2.

0903- SITS DOWN POSSIBLY NURSING CUB(s).

0917- UP AND MOVING N. 2 CUBS. ONE OFF HER RIGHT REAR FOOT AND ONE TRAILING ABOUT 25' BEHIND.

0920- LAYS DOWN.

0926- UP AND MOVING N. TURNS BROADSIDE LOOKING BACK.

0929- SITTING LOOKING BACK.

0933- "MILLING ABOUT".

0934- MOVING N WITH 2 CUBS.

0936- 2ND SECURITY OFFICER ARRIVES AND CONFIRMS 2 CUBS.

0953- CONTINUING N WITH 2 CUBS.

0958- LAYS DOWN.

1017- UP AND "MILLING ABOUT".

1027- MOVING N.

1035- LAYS DOWN.

1047- UP AND MOVING N.

1120- RADIOED SHELLIE AND & CHUCK. ADVISED MY ORIGINAL DISTANCE WAS OFF. BEAR WAS NOT 1 ¼ MILE FROM END OF AIRPORT. BEAR WAS APPROXIMATLEY 5/8'S MILE DISTANT. BEAR BEGAN WALKING BACK TOWARDS DIRECTION CAME FROM.

1130- STOPS, "MILLS ABOUT", STANDS ON HIND LEGS 3 TIMES.

1139- MOVING N.

1151- LOST SIGHT OF BEAR. EITHER LAID DOWN OR WALKED INTO DEPRESSION OR

BEHIND RISE.

1201- BEAR SIGHTED. MOVING N.

1240- LOST SIGHT OF BEAR.

1308- TELEPHONED SUPERVISOR. HE SUGGESTED PATROLLING AND RETURNING IN IN 1-2 HOURS. SPOKE WITH LCMF SURVEY CREW WORKING ON AIRSTRIP. SAID THEY WOULD CALL SHOULD THEY SEE BEAR. 1319 TOM SCHWANTES-SECURITY ARRIVES PAD 3 AND ASSUMES BEAR WATCH.

1526- ARRIVE PAD 3 AND RELIEVED TOM. STATED HE DID NOT SEE BEAR.

1703- DEPARTED PAD. NO FURTHER SIGHTING OF BEAR AND CUBS.