Sakhalin Environment Watch

Photo report for inspection of construction on the main pipeline for Sakhalin II project in Dolinsky District of Sakhalin Region

Inspection conducted on April 3, 2008 as part of public environmental monitoring in accordance with Article 68 of Federal Law “On Environmental Protection”

General view of the location where the pipeline crosses the Rybnaia River. On the right side of the photo one can see the tracks of caterpillar equipment through the riverbed.

During the inspection which took place on April 3, 2008, the following sections of the pipeline route were observed along the 4th stream:

1) The pipeline crossing over the Rybnaia River (which flows to the Sea of Okhotsk), the slopes adjacent to the river in the pipeline corridor (PK 488.4), and the section of the river about 400 meters downstream from the pipeline crossing;
2) the section of the pipeline route between PK 460.2 and PK 465.0 (about 5 km), which intersects the Krasnaia River and a number of small waterways which flow into the Red and Baklanovka Rivers.

The main subcontractor for construction on these sections of the pipeline is the joint stock company Welding-Assembly Trust, and the general contractor for construction of the main pipeline is Starstroi, Inc.

Section 1. The pipeline crossings over the Rybnaia River were built in March 2005 (for the oil pipeline) and April 2006 (for the gas pipeline). Nevertheless, technical recultivation and leveling of the right-of-way with restoration of the original topography and establishment of anti-erosion dividers on the slopes in this section have not taken place to this day.

Work to install anti-erosion and bank-strengthening measures was begun during our inspection of the river banks, including imported and stored wire nets for the strengthening of the river banks and geotechinical fabric for the installation of anti-sludge screens along the riverbed. A road was recently built for the movement of caterpillar equipment along the slope of the left side of the river valley down to its riverbed near the pipeline right-of-way. The road ends in the riverbed itself, evidenced by the tracks of the equipment crossing the riverbed without a bridge. Farther along, on the right slope of the Rybnaia River valley there is no road, the slope is covered with snow, and no erosion processes have been observed. On the left slope erosion processes are very active near the recently constructed road, fast-running streams erode furrows in the ground and carry the mud into the Rybnaia riverbed. During the inspection we observed an excavator moving downstream along the road and its treads pushed two muddy waves of water ahead of it. Upstream from the pipeline route the water in the Rybnaia River is transparent and clean. Downstream from the pipeline route crossing until the Rybnaia River empties into the Sea of Okhotsk (about 500 m), the water in the river is brown, absolutely cloudy, and very dirty.

In the opinion of the inspectors, pollution of the Rybnaia River with suspended particulates washed down from the pipeline route by melting snow during active erosion is taking place above permitted standards. This is occurring because measures are not being taken to stabilize the slopes, prevent washouts on the slopes, or strengthen the banks of the river. The main factor in the marked worsening of environmental conditions on the Rybnaia River is the recently constructed road and the movement of equipment along it, which activates erosion and should be absolutely forbidden under the conditions of melting snow.

Section 2. The pipelines in this section were buried during the period from 2005 to the first half of 2006. Technical recultivation and leveling (the replacement of soil removed during construction on the pipeline route and the restoration of topography to its original state) was carried out in the winter of 2006-2007. During the spring and summer of 2007 active erosion and landslide processes occurred in this section. One of the reasons for this was the fact that technical recultivation was carried out during the winter on frozen and unpacked soil which was often covered with snow. In the fall of 2007 all landslides and erosion wash-outs were smoothed over, the accumulated soil was cleaned out of the riverbed, anti-sludge screens were installed, and anti-erosion dividers (barriers against the soil) were placed on the slopes.

During our inspection this entire section of the pipeline route was covered with snow, and erosion processes on the undisturbed section have not yet been observed. However, along this entire section a road was recently built for the periodic activity of caterpillar equipment. In order to ensure crossings over six different streams, the streambeds and the lowest parts of the stream valleys were filled in with soil, over which the road passes. The soil was recently filled in directly over the ice and packed snow which cover the streambeds (there is water present in all of the streambeds). In the course of inspecting these streams, no mechanisms or equipment designed to allow the water to pass through the soil were found. Unused culvert pipes lie on the snow next to several of the filled-in streams.

In five places in this section of the pipeline route, the integrity of the surface after technical recultivation and leveling has been disrupted by recent excavation. In two places the work was not finished and a fiber-optic cable is protruding from the ground. A cross-country vehicle owned by the company Fudzhikura which carried out the repair of the cable damaged during recultivation is located in this area.

In the opinion of the inspectors, the occurrence of repair excavations and, in particular, the construction of the road by filling in riverbeds during the beginning of active snow melt creates the threat of renewed erosion and landslide processes and a subsequent increase in pollution in the streams and the Krasnaia and Baklanovka Rivers. During ongoing snow melt, the mounds of construction soil on the ice- and snow-covered streams will unavoidably run down into the streambeds. All construction work must be forbidden in this section, as in other sections with highly varied topography, under the conditions of increased environmental sensitivity and slope instability during the spring months. In particular this relates to any excavation or the movement of heavy equipment.

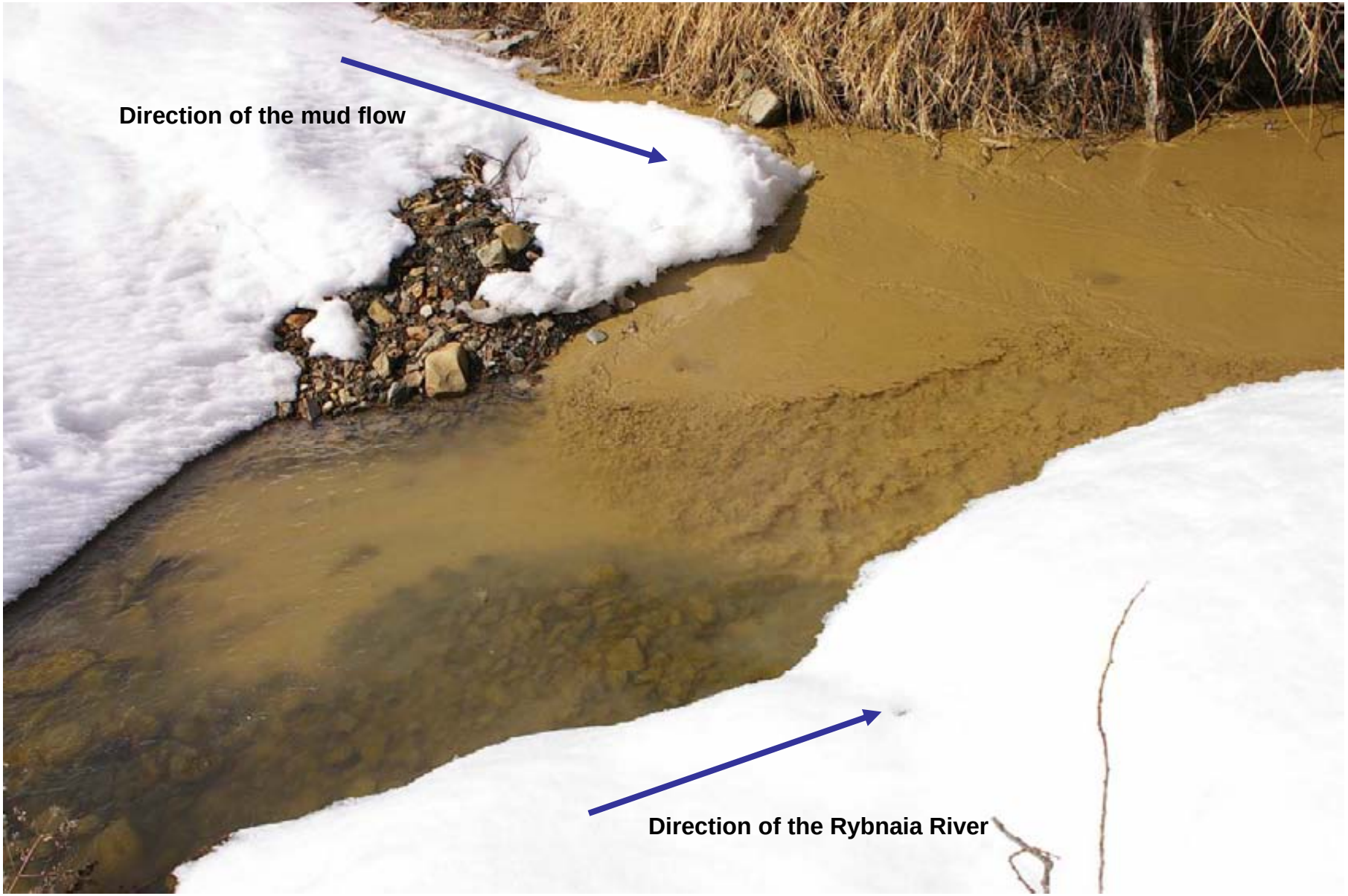
PK 488.4. General view of a slope in the Rybnaia River valley (left shore). A road was recently built along this slope. From the southern side, this slope receives strong direct sunlight, so snow melts faster here. The movement of caterpillar equipment accelerates the snow melting process even more, concentrating melt waters in the road tracks.

PK 488.4. The presence of the road and activity on it substantially activates erosion of the soil on the slope from melt waters.

PK 488.4. As a result of active erosion, mud flows rush down into the Rybnaia River, and the volume of the mud flows is sharply increased after the passing of heavy equipment.

PK 488.4. In fact, it is not dirty water that flows from the road in the pipeline right-of-way to the Rybnaia River, but rather liquid mud. In normal, natural conditions during this time of year the water in the river should be clean. Such is the case upstream from the crossing of the pipeline route on the Rybnaia River, as well as on all other rivers in Dolinsky Region which are not suffering from erosion processes as a result of the pipeline route.

PK 488.4. A location where caterpillar equipment crosses the Rybnaia riverbed upstream from where mud from the road enters the river from the left shore. It is easy to see that here the water in the river is clean (until it mixes with the mud from the road).



PK 488.4. The point where mud from the road enters the Rybnaia River.

The Rybnaia River about 300 meters downstream from the crossing of the Sakhalin II pipelines. The water in the river is absolutely dirty.

PK 488.4. A general view of the Rybnaia River valley slope (right shore). Here the integrity of the snow cover is preserved, there is no recently-constructed road, and there is no activity by heavy equipment. Accordingly, erosion processes are not observed and pollution of the river from this slope has not taken place so far.

PK 461.0. General view of the slope above a stream which flows into the Krasnaia River. A section of the pipeline with completed anti-erosion barriers that were disrupted by the recently constructed road is visible.

PK 461.0. A streambed, covered with soil for the construction of a road crossing. Water-passage equipment is absent, and the soil is piled on top of the snow and ice.

PK 461.7. The bed of another stream, filled with soil for the construction of a road crossing over the stream. Water-passage equipment is absent, the soil is piled on top of the snow and ice. On the left an abandoned culvert lies on the ground.

PK 461.7. The same location as in the previous photo. The pile of earth blocks the streambed, and a culvert lies on the ground.

PK 462.0. Repair work on the fiber optic cable with the use of a cross-country vehicle.

PK 462.6. Another example of a slope that has been damaged from a recently constructed road.

PK 462.6. Linear erosion is occurring on the tracks of this road, despite the fact that no soil wash-out was observed on other sections of the slope.

PK 462.6. To the right is a damaged section where repair excavation was recently carried out (repair of a fiber optic cable). To the left is a road that is currently in active use.

PK 462.6. Another example of a stream that has been covered with earth on top of snow and ice to create a crossing for equipment. When the ice begins to melt this entire mound of earth will run into the stream as well as into Baklanovka River, to which this stream flows.