

SWAN LAKE FIRST NATION – MATRIX SOLUTIONS INC. PARTNERSHIP

INDIGENOUS CONSTRUCTION MONITORING

WEEKLY REPORT

SPREAD 8

OCTOBER 22ND TO OCTOBER 27TH



1. PURPOSE OF THIS REPORT

The report is a weekly summary of the daily reports submitted by the Indigenous Construction Monitors that are working on spread eight. The social and cultural findings have been tabulated with locations and mitigation measures below. A summary of the construction activities has been summarized for the weeks of October 22nd to October 27th, 2018.



Social and Cultural Features

Field Observation	# of occurrences	Description and Mitigation Measures	Mitigation Status	Further Action Required (Yes/No)
Traditional Use Area (hunting, fishing, gathering, trapping)	N/A			
Rock Formations (rocks of significance, tipi rings, etc.)	N/A			
Artifacts	N/A			
Bones	N/A			
Potential Gravesites	N/A			

Environmental Features

Field Observation	# of occurrences	Description and Mitigation Measures	Mitigation Status	Further Action Required (Yes/No)
Medicinal or Cultural Plants	N/A			
Aquatic Life	N/A			
Animal Observations or Burrows	N/A			
Bird Nests	N/A			
Trees (Red Willow)	N/A			
Wetlands	N/A			
Watercourse Crossing	N/A			



Additional Observations and Summary of Activities or Concerns

Weekly activity included attending daily tailgate meetings and continue to check access points on the ROW and monitor activities on Spread 8.

October 22, 2018 - Safety included: Stay out of swing zones while onsite, Watch for wildlife coming out of ditches, Watch for wide loads on Hwy #2. Be careful walking up and down steep slopes.

Slips, trips, falls, Driving conditions, Congested sites, Wildlife, Distracted driving, Fatigue. Watch out for busses on rural roads and school zones. Watch out for vehicles in uncontrolled intersections. Stay out of machine swing zones and blind spots. Watch for dangerous drivers. Watch out for speeding drivers in construction zones signs are being ignored. Watch out for domestic animals. Drive with caution behind bigger vehicles causing dust up. Be careful on mats vehicle to low to the ground.

Weather forecast/Environment:

Sunny and clear skies, high of 7C

Sunny, High of 7 very windy Fine clean and bleach when entering a new RM or land owner requested wash. Watch for ruts on ROW

General:

SF8 Oak Creek Crossing KP 921+260

Side booms moving the pipe into place for the tie in crew and welders.Long boom excavator cleaning clay away from silt fence.The ladders are tied on to the T-posts.there are also weight bags placed to the side.The light generator has a spill tray underneath.A rock truck is moving clay and the crane is moving sheet piles.

SF28 Tie-in crew is working on the East side of the road.

SF36 Spruce boring crew working on the West side. Excavator was moving shafts into place for the boring unit. A hydro-vac was on site.

SF38 KP 975+975.9 Caterpillar was moving clay to the side. An excavator was digging the ditch and loading into rock truck.

TLU 180-185

SF50 Excavators ditching on the West side.

SF37 HD boring on the North side.

SF 38 (KP 975+003) Cultural sensitive area. Crew is onsite excavating tie-in trench. Soil is being removed and placed into a rock truck which is piling East of the trench. Soil is also being piled adjacent to trench by a dozer. A oiler is with the excavator giving depth measurements. Proper fencing and signage is installed around the open trench. Water needs to be pumped out of trench once trenching is complete.

SF 37 (KP 971+380) Bore crew is onsite. Drill rig is on the North side of the road drilling South West under road. Bore pit has been excavated, T-posts, snow fencing, and signage has been place around bore pit. Excavator on the South side of the road is touching up the trench walls and installing stairs on the South side of the trench. Goal posts have been installed on the South access under powerlines to prevent equipment from contacting the powerline. Silt fencing has been installed on the sides of the approaches.



SF 31 (KP 960) Tie-in crew is onsite backfilling tie-ins. Excavators are placing soil on top of pipe, oiler is watching for rocks that could potentially damage the pipe. When found they are removed and placed aside. Dozer is onsite piling soil on the edge of the trench in preparation for when the pipe is safely covered.

(KP 929+962) Mulching crew is onsite spraying Green edge mulch on the North side of the ROW. Water truck is following crew to be available to refill the water tank on the mulching machine when it is low. Crew is working West to East.

Kick Off, Crew is working to place Top soil back on the ground. Dozers are working together to level Top soil.

Work Forecast:

Continue to monitor ROW.

Continue to Monitor construction, wetlands, water courses and traditional land use areas.

October 23, 2018

Safety included:

Stay out of swing zones while onsite, Watch for wildlife coming out of ditches, Watch for wide loads on Hwy #2.

Be careful walking up and down steep slopes.

Slips, trips, falls, Driving conditions, Congested sites, Wildlife, Distracted driving, Fatigue. Watch out for Busses on rural roads and school zones. Watch out for vehicles in uncontrolled intersections. Stay out of machine swing zones and blind spots. Watch for dangerous drivers. Watch out for speeding drivers in construction zones signs are being ignored. Watch out for domestic animals. Drive with caution behind bigger vehicles causing dust up. Be careful on mats vehicle to low to the ground.

Weather forecast/Environment:

Temperature -9 High of 8C Winds SE at 10 to 15 km/h

Sunny, High of 10

Fine clean and bleach when entering a new RM or land owner requested wash.

Watch for ruts on ROW

Coldler in the morning dress warm and delayer as the day warms up.

General:

SF30 Two excavators and a caterpillar are backfilling the ditch.

SF35 KP 967+514 Excavator and crew de-watering ditch.

SF47 KP 990+471 Caterpillar was leveling clay.

SF38 KP 975+975.9 Excavator moving clay away from the ditch while the side booms move the pipe into place.

Attend morning meeting.



Kick Off - Multiple dozers are onsite working together to put back top soil and level it. SF 11 (KP 924+848) Sand blasting and mainline ditching crews are onsite. Sand blasters are cleaning the welding joints on the pipe. Operator of sand blaster is wearing proper PPE: ear plugs, safety vest, gloves, face shield and breather. Proper signage is put out for operation. Mainline ditching is digging trench West to East. Crew members assist operator when ever they are needed and assure machine is going in a straight line.

SF 29 West side of the road. Tie-in crew is onsite. Side booms with slings are being used to maneuver the pipe around in the trench. Welders are onsite welding pipe joints together connecting to the mainline. All proper PPE is being worn. Ladders are in place on the North side of the trench, stairs have been built into the trench walls on the South side. Rope with flagging that was blocking off open trench has been removed for work to take place.

SF 39 (KP 975+878) Crew is onsite excavating trench. Soil is being removed and placed adjacent to trench as well as being piled on ROW for a dozer to push and pile soil on the South side of the ROW. Oiler/spotter is with excavator operator giving depth measurements. Trench has proper fencing and signage installed. Stairs have been built into trench walls. Debris from mats have been placed in a small pile near the access.

Work Forecast:

Continue to monitor ROW.

Continue to Monitor construction, wetlands, water courses and traditional land use areas.

October 24, 2018

Safety included:

Stay out of swing zones while onsite, Watch for wildlife coming out of ditches, Watch for wide loads on Hwy #2.

Be careful walking up and down steep slopes.

Slips, trips, falls, Driving conditions, Congested sites, Wildlife, Distracted driving, Fatigue. Watch out for Busses on rural roads and school zones. Watch out for vehicles in uncontrolled intersections. Stay out of machine swing zones and blind spots. Watch for dangerous drivers. Watch out for speeding drivers in construction zones signs are being ignored. Watch out for domestic animals. Drive with caution behind bigger vehicles causing dust up. Be careful on mats vehicle to low to the ground.

Weather forecast/Environment:

Temperature 1C
Partly cloudy
High of 13C
Winds SE at 15 to 25 km/h

Sunny, High of 13

Fine clean and bleach when entering a new RM or land owner requested wash.

Watch for ruts on ROW

Coldler in the morning dress warm and delayer as the day warms up.



General:

SF12 Excavators digging ditches on both sides of road.

SF20 Crew taking down silt fences at approatches and hydro-vacing.

SF22 Tractor discing on the North side.Long Boom excavator working on the south side.

SF29 KP 957+694 Excavators backfilling ditches on both sides of the road.

SF32 Side boom crossed road pulling a skid behind it. Another side boom was holding pipe for a crew and an excavator moving clay away from ditch.

SF33 KP 964+673 Three side booms are holding up the ends of the pipe for the tie-in crew.A crew bus was on site.Ladders are tied to T-posts.

SF35 KP 967+475 Excavator was digging ditch and loading clay into a rock truck. A caterpillar was leveling clay. The gas generator was in a spill tray.

SF38 KP 975+000 South side of the road in ditch ladder not tied on.

North side of the road KP 974+957 HD drill waiting to bore under the road. Hydro-vac dewatering crew working in the ditch. All wearing proper PPE. Ladder tied on to T-posts, and fence in place.

Attend morning meeting.

SF 3 crew is onsite cleaning u the ROW. Tractor is tilling the ROW working West to East. SF 10 Lowering in crew in onsite. Sidebooms with cradles are being used to lower pipe. Smaller excavator is being used to knock over and move skid piles as pipe goes in the ground so they will not be in the way. A crew member is walking beside the last sideboom making sure the pipe is lined up in the middle of the trench. A crew is following behind the lowering in crew picking up skids. Sideboom is pulling a trailer behind it, crew members work together to pile skids in an orderly fashion. Goal posts are installed at the access to prevent machines from coming close to making contact with powerlines.

SF 28 (KP 955+877) Tie in crew is onsite. An excavator is digging tie in trench, soil is being removed and placed on ROW for dozer to pile adjacent to the trench. A crew member was working with the excavator providing depth measurements. Sidebooms with cradle slings are waiting for tie in ditch to be completed so they can lower in pipe. Fencing and proper signage has been installed. Crew completed pumping water out on trench, spill trays were placed under light lamp and generator in case of any leaks. Hydro vac hole was uncovered, I placed plywood back over the hole and adjusted fencing around it.

SF 35 (KP 967+517) Crew is onsite pumping concrete into a bore hole. Excavator was onsite removing soil and placing into a rock truck. Proper signage and fencing is in place. Concrete truck and pump truck are working together to pump concrete into bore hole. *Pump truck washed out on the side of the road (See attached photo)*.

Work Forecast:

Continue to monitor ROW.

Continue to Monitor construction, wetlands, water courses and traditional land use areas.

October 25, 2018

Safety included:

Stay out of swing zones while onsite, Watch for wildlife coming out of ditches, Watch for wide loads on Hwy #2.



Be careful walking up and down steep slopes.

Slips, trips, falls, Driving conditions, Congested sites, Wildlife, Distracted driving, Fatigue. Watch out for Busses on rural roads and school zones. Watch out for vehicles in uncontrolled intersections. Stay out of machine swing zones and blind spots. Watch for dangerous drivers. Watch out for speeding drivers in construction zones signs are being ignored. Watch out for domestic animals. Drive with caution behind bigger vehicles causing dust up. Be careful on mats vehicle to low to the ground. Foggy on Hwy #10, #2 drive with caution.

Weather forecast/Environment:

Temperature 4C
Sun and cloud in morning, cloudy in the afternoon
High of 11C
Winds NE at 10 to 15 km/h

Sunny, High of 13

Fine clean and bleach when entering a new RM or land owner requested wash.

Watch for ruts on ROW

Coldler in the morning dress warm and delayer as the day warms up.

General:

SF22B KP 944+425 Side boom crew lowering in curved pipe for tie-in crew.Loader moving sheet piles.Skids and hoses piled beside the approach.East side crane sheet piling.Fuel truck on site.

SF28 Randall tie-in crew welding pipe.Ladders tied to T-posts,small generator is in spill tray.Fences in place.Hauling crews are moving caterpillar.Tandem truck is hauling sand to the site.

KP 955+874 Ultra sound crew checking weld.PPE being worn by the crews.Short pieses of pipe beside the approach.

SF38 KP 975+000 Excavator lowered reamer for the drill crew to attach to the drill shaft exposed on the South side of the road.HD drill pulled the reamer and pipe under the road to the ditch on the North side.

Attend morning meeting.

Correction on Daily Report Oct 24, 2018. At SF 35 they were not pumping concrete, I later found out it was Grout. No longer a concern.

SF 10 (KP 923+335) Excavator is onsite digging bell hole, Soil is being removed and placed next to trench. Another excavator is piling the soil adjacent to access. Oilers are assisting excavator that is digging bell hole, giving them depth measurements. t-posts with rope and flagging are installed near the road with signage. Snow fencing is to be installed.

SF 22B (KP 944) East side of the road. Wetlands crew is onsite installing sheet metal pilings. A crane and excavator are working together to install the sheet piles. The crane is being used to lift and use the hammer drill to pound the piles into the ground, the excavator is holding the piles in place. Matting has been installed along the ROW to allow access for equipment and vehicles, area is very muddy. A Bridge has been installed across the creek, all safety measures are in order. Silt fencing has been installed in area around the bridge and the creek itself (Riparian buffer zone is minimum 10M)

SF 32 Tie in crew is onsite. Welders are in trench connecting the pipe to the mainline. Crew is wearing proper PPE. Ladders are in place and secure on each side of the trench. Proper fencing and signage is in place.



SF 38 (KP975) Bore crew is onsite. Drill rig is on the North side of the road drilling South under the road. Pipe was being pulled through while drill bit made its way back to drill rig. Hydro Vac is pumping water out of bell hole. Excavators were being used to assist the rig by anchoring it down. Proper fencing and signage is installed around the bell hole, ladder in trench is secure. Flaggers were used when any equipment crossed the road.

Work Forecast:

Continue to monitor ROW.

Continue to Monitor construction, wetlands, water courses and traditional land use areas.

October 26, 2018

Safety included:

Stay out of swing zones while onsite, Watch for wildlife coming out of ditches, Watch for wide loads on Hwy #2.

Be careful walking up and down steep slopes.

Slips, trips, falls, Driving conditions, Congested sites, Wildlife, Distracted driving, Fatigue. Watch out for Busses on rural roads and school zones. Watch out for vehicles in uncontrolled intersections. Stay out of machine swing zones and blind spots. Watch for dangerous drivers. Watch out for speeding drivers in construction zones signs are being ignored. Watch out for domestic animals. Drive with caution behind bigger vehicles causing dust up. Be careful on mats vehicle to low to the ground. Foggy out drive with caution.

Weather forecast/Environment:

Temperature 5C
Fog in the morning, cloudy in the afternoon.
High of 14C
Winds NE at 10 to 15 km/h

Cloudy and foggy, High of 11
Fine clean and bleach when entering a new RM or land owner requested wash.
Watch for ruts on ROW

Coldler in the morning dress warm and delayer as the day warms up.

General:

SF21 Lowering in the pipe with side booms. Conditions are wet and muddy. SF32 Caterpillar scraping wet mud to the side.Side boom moving short piece of the pipe closer to the road.Caterpillar pushing up mud beside the approach.Crew are wearing PPE. SF33 Ditch open on both sides of the road.Crew bus parked on the side of the road. SF35 Excavator was digging clay out of the ditch and loading a rock truck.Side boom crossing road to south side.Denver Reid welding crew was on the site.Fuel truck was filling up excavator.Side boom lifting the pipe so crew could put skid piles under.Conditions are wet and muddy.



SF43 Hydro-Vac truck parked on the road. Excavator moving clay pile to the side, while another was digging the ditch.

Drill shaft was exposed in ditch at the road.

Attend morning meeting.

SF 10 (KP923+335) Crew is onsite piling soil on the South side of the ROW. East side of the road crew is starting to dig bell hole. Top soil is scrapped off. Hydro vac arrived onsite to locate and expose existing utilities.

SF 33 East side of the road crew is onsite backfilling tie ins. Excavator is placing soil on top of pipe covering it. Oiler and inspector are with excavator watching for rocks that could potentially damage the pipe, when found they are removed and placed to the side.

SF 35 North side of the road an excavator is digging tie-in trench soil is being removed and placed adjacent to the trench or placed into a rock truck to be placed in a pile on the ROW. Fencing and signage is installed closest to the road.

SF 38 (KP974+957) an excavator is onsite digging bell hole and trench. Operator is carefully removing soil that is next to the pipe and placing it next to open trench. Some of the fencing was taken down temporarily but will be put back up. Proper signage is in place. Oiler is spotting for the operator.

SF 43 South side of the road Bore crew is onsite preparing for boring under the road. South side of the road excavators are working to dig tie-in trench and move soil out of the way so the sidebooms have enough room to operate. Oiler is giving operator who is digging the trench depth measurements as he digs. Bell hole was dug with a sum pit in it. A piece rock shield was placed half way down the pipe. Proper fencing and signage is in place. North side of the road drilling rig is waiting to continue drilling.

Work Forecast:

Continue to monitor ROW.

Continue to Monitor construction, wetlands, water courses and traditional land use areas.

October 27, 2018

Safety included:

Stay out of swing zones while on site. Watch for wildlife watch for wide loads on hwy#2. Be carefull waking up and down steep slopes.

Slips, trips, falls, Driving conditions, Congested sites, Wildlife, Distracted driving, Fatigue. Watch out for Busses on rural roads and school zones. Watch out for vehicles in uncontrolled intersections. Stay out of machine swing zones and blind spots. Watch for dangerous drivers. Watch out for speeding drivers in construction zones signs are being ignored. Watch out for domestic animals. Drive with caution behind bigger vehicles causing dust up. Be careful on mats vehicle to low to the ground. Foggy out drive with caution.

Weather forecast/Environment:

High of 8C Cloudy with 60% chance of rain.



Cloudy and foggy, High of 4

Fine clean and bleach when entering a new RM or land owner requested wash.

Watch for ruts on ROW

Coldler in the morning dress warm and delayer as the day warms up.

General:

SF33 Three side booms holding pipe in ditch for the tie-in crew.Paul Dunne crew.Ladder tied to T-posts.

SF34 West side road side booms holding pipe for the tie-in crew. Denver Reid crew.

SF35 KP 976+475 North side excavator digging ditch, loading the clay into a rock truck.

South side sandblasting crew cleaning the pipe, then x-ray crew checking welds and coating the pipe.

Cleanup crew working with truck trailor and side by side. Crew wearing PPE. SF41A KP 979+410 West side Hydro-vac de-watering the ditch. HD drill crew Jaynard working. Trailor with reamers and rods on site. Excavator digging ditch, caterpillar moving clay. On the East side excavator moving clay to the side. Crews setting ladders up in the ditch. Drill shaft under road , exposed in the ditch. Excavator lowering the reamer for the crew to attach. The excavator moved the pull head to the pipe to be welded to the pipe.

Attend morning meeting.

SF 10 (KP 923+315) Crew is onsite digging bell hole and exposing existing utilities. Crew members are exposing existing utilities by using shovels, rope will be used to hold them inplace which will be anchored by T-posts. Excavator continued digging and removing soil placing it adjacent to trench. Crew members flagged when equipment needed to cross the road. SF 11 (KP924) Crew is onsite backfilling pipe. Multiple excavators are working together to place soil on top over pipe covering it. Oilers are with each excavator watching for rocks that could potentially damage the pipe. Crew is working east to West.

SF 33 Tie-ins crew is onsite as well as sand blasting crew. Welders are connecting pipe to the mainline. Side booms with slings are being used to hold the pipe in place while the pipe is being welded. Operator of sand blaster is cleaning the welding joints of the pipe. Operator is wearing proper PPE for work being performed. Stairs have been built into the South side of the trench, on the North side a ladder is in place and is secure. Trench is fenced off and has proper signage.

SF 35 Crew is onsite ecavating tie-in trench. Excavator is removing soil and placing on ROW for the dozer to pile on ROW. Oiler is giving depth measurements to operator. Fencing and signage has been installed.

SF 41A Bore crew is onsite. Drill rig is on the West side of the road drilling under the road increasing the drill bit size with each pass. Hydro vac is also on the West side of the road removing water out of sump pit. Crew is preparing to pull the pipe through the bore hole.

Work Forecast:

Continue to monitor ROW.

Day off.



Photos of Sites Visited & Topics Discussed This Week

October 22, 2018

SF8 Oak Creek Crossing KP 921+345



Description & Location:

Photo facing South East SF 38 (KP 975+003) Excavators digging tie in trench.



$Description \& \ Location:$

Photo facing South
Kickoff
Dozers are working together to level the
ROW.



Description & Location:

Photo facing West. SF 31 (KP 960) Crew is placing soil on top of pipe.

Photo

Right Click Change Picture..



October 23, 2018



Description & Location:

SF38 KP 975+975.9 Facing South East Excavator moving clay away from the ditch. Side booms bringing pipe to be placed in ditch.





Description & Location:

Photo facing North east SF 11 (KP924+848) Sand blaster cleaning welding joint.

Photo



Description & Location:

Photo facing West SF 29 West side of the road. Sidebooms with slings maneuvering pipe.



Description & Location:

SF35 KP 967+514 Facing West Excavator and the de-watering crew are trying to pump water out of the ditch.

Photo



Description & Location:

Photo facing South West. SF 11 (KP924+848) Ditcher is digging trench.

Photo

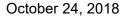
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Description & Location:

SF38 KP 975+000 Facing South East Generator andwater pump in spill trays,ladder not tied on,fence in place.





Description & Location:

SF38 KP 974+957 Facing South West Crew member holding stick for the surveyor.Hydro-vac taking water out of the trench.HD drill shaft visible also.



Description & Location:

Photo facing East SF 10 East side of the road. Pipe is being lowered in.

Photo



Photo



Description & Location:

Photo facing West SF 28 (KP955+877) Crew is excavating tie in trench.

Photo

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October 25, 2018



Description & Location:

SF28 Facing North West KP 955+874 Ulta sound crew checking weld on the



Description & Location:

Photo facing East SF 10 East side of the road. Excavator digging bell hole.



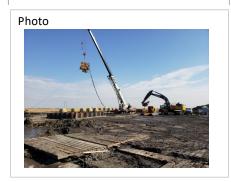
Description & Location:

Photo facing North West SF 32 North side of the road. Crew onsite welding pipe together.



Description & Location:

SF38 Facing South East KP 975+000
Excavator lowered reamer in the ditch for



Description & Location:

Photo facing North East SF 22B (KP 944) Crew is installing sheet metal piles.

Photo

Right Click Change Picture..



October 26, 2018



Description & Location:

SF35 KP 967+475 Facing West Excavator digging ditch and loading clay into rock truck.Crew member measuring depth of ditch.



Description & Location:

Photo facing West SF 10 West side of the road. Hydro vac preparing to locate utilities.



Description & Location:

Photo facing South East SF 43 South side of the road. Excavators removing soil from trench and ROW.



Description & Location:

SF43 KP 982+774 Facing South Excavator moving clay pile to the side. Fences in place.



Description & Location:

Photo facing North West SF 38 (KP 974+957) Crew is carefully removing soil next to pipe.

Photo

Right Click Change Picture..



October 27, 2018



Description & Location:

SF34 KP 966+476 Facing West
Three side booms holding pipe for Denver
Reid tie-in crew.De-watering crew pumping
water from one end of the ditch to the other.





Description & Location:

Photo facing West
SF 10 West side of the road.
Crew members using shovels to expose
existing utilities.

Photo



Description & Location:

Photo facing South West SF 41A (KP979+400) Hydro vac removing water, Drill rig drilling under road.



Description & Location:

SF41A KP 979+410 Facing West Hydro-vac crew de-watering the ditch.Fences are in place.

Photo



Description & Location:

Photo facing North West SF 11 (KP 924) Excavator is backfilling trench.

Photo

Right Click Change Picture..



Senior Environmental Scientist

APPROVALS

gmeling)	January 14, 2019	
Justin McKinney	Date	
Senior Construction Monitor		
Al se	January 14, 2019	
Daniel Tober	Date	