



State of Alaska
Department of Fish and Game
Sportfish Division

Nomination Form
Fish Distribution Database

Region SCN

USGS Quad(s) TYONEK A-6

Fish Distribution Database Number of Waterway 247-10-10080

Name of Waterway McArthur River

USGS Name Local Name

Addition Deletion Correction Backup Information

For Office Use

| | |
|--|---|
| Nomination # <u>07-218</u> | _____ ADF&G Fisheries Scientist _____ Date |
| Revision Year: <u>2008</u> | _____ ADNR OHMF Operations Mgr. _____ Date |
| Revision to: Atlas _____ Catalog _____ Both _____ | <u>9/12/07</u> Date |
| Revision Code: <u>F-1</u> | _____ FDD Project Biologist _____ Date |
| | _____ Cartographer _____ Date |

OBSERVATION INFORMATION

| Species | Date(s) Observed | Spawning | Rearing | Present | Anadromous |
|----------------|------------------|----------|---------|---------|-------------------------------------|
| sockeye salmon | 8/13/2007 | | | X | <input checked="" type="checkbox"/> |
| | | | | | <input type="checkbox"/> |
| | | | | | <input type="checkbox"/> |
| | | | | | <input type="checkbox"/> |
| | | | | | <input type="checkbox"/> |

IMPORTANT: Provide all supporting documentation that this water body is important for the spawning, rearing or migration of anadromous fish, including: number of fish and life stages observed; sampling methods, sampling duration and area sampled; copies of field notes, etc. Attach a copy of a map showing location of mouth and observed upper extent of each species, as well as other information such as: specific stream reaches observed as spawning or rearing habitat, locations, types, and heights of any barriers; etc.

Comments: Observations substantiate presence of sockeye salmon in McArthur River (247-10-10080)

Name of Observer (please print): Andy Barclay
Signature: *Andy Barclay*
Agency: ADF&G - CF
Address: 333 Raspberry Road
Anchorage, AK 99518

Date: 8/27/2007

This certifies that in my best professional judgment and belief the above information is evidence that this waterbody should be included in or deleted from the Fish Distribution Database.

Signature of Area Biologist: *Daniel Smith* Date: 9/10/07

Name of Area Biologist (please print):

Revision 02/05



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 Name of Area Biologist (please print): _____

Summary of Western Cook Inlet sockeye baseline sampling trips

August 13, 2007

Samplers: Andy Barclay, Gina Johnston, and Beth McInain

Method: seine net

Transport: Helicopter (R44)

Pilot: Ray Hodges, Pollux Aviation

Flight Time: 4.1 hours

We flew out of Merrill Field at 08:30 and headed to the Kustatan River to sample Blacksand Creek. On the way we checked Threemile Creek for sockeye and there were none. What were thought to be a couple of sockeye on the scouting flight with a PA12 turned out to be a couple of logs. We arrived at Blacksand Creek around 09:30 and found a small clear water tributary that contained sockeye (N60.95310, W152.11860). The water on the mainstem had come up since August 8th and it was too silty to spot any sockeye. We collected 124 sockeye axillary processes and headed to Farro's Lake. ①

We arrived at Farro's Lake around 12:45 and landed near the mouth of the inlet stream. We hiked upstream a couple of miles to some pools that contained sockeye and collected 155 axillary processes (N61.01249, W152.06826). We were back at the helicopter around 15:45. ②

We flew to the McArthur River to check out Stream 13U (N61.07587, W152.00235) and a slough (N61.04421, W151.9159) where I saw fish on August 8th. The McArthur River was much higher and there were no fish in Stream 13U. There were fish in the slough, but the water was really dark and they were hard to see. We landed near the slough to inspect them on the ground. We found that it was a mixture of salmon species and there weren't enough sockeye to warrant a collection. ③ ④

At about 16:30 we flew up the Chakachatna to look at a possible sampling location (N61.19340, W152.01632) that I spotted on my survey flight. On the way there we found a small stream (N61.14310, W151.81822) near the mouth of Straight Creek on the Chakachatna and it contained a mixture of salmon species and only a few sockeye that were spaced far apart. We flew up the clear water tributary to Straight Creek (N61.16844, W151.84170), the water was really low and there were only a few salmon in the lower portion of the creek. We arrived at the sampling site off the Chakachatna and saw roughly 30 sockeye in a small pool at the mouth of the stream, and nothing upstream from there. I decided there weren't enough sockeye to collect samples so we headed back to Anchorage. ⑤ ⑥ ⑦

We flew over the Beluga drainage on the way to Anchorage and checked Lone King and Drill Creeks. The water had dropped since August 8th and no sockeye were spotted in either creek. We arrived at Merrill Field at around 18:30.

Comments

We brought 15 gallons of extra fuel with us on this trip and it was more than enough. The pilot topped off the tanks on the helicopter when he picked us up at Merrill Field.

August 14, 2007

Samplers: Andy Barclay, Scott Raborn, and Robert Begich

Method: seine net

Transport: Helicopter (R44)

Pilot: Ray Hodges, Pollux Aviation

Flight Time: 4.6 hours

At 8:30 Scott and I flew from Merrill Field to pick up Robert at the Soldotna airport. After fueling up the helicopter and picking up Robert we headed for the South Fork Big River.

We sampled two locations on the South Fork Big River that were about a mile and a half apart. At 10:15 we landed at the first sampling site (N60.69900, W152.29641) and sampled 121 sockeye. At 12:00 we flew to the second sampling site (N60.68808, W152.32382). The main river had come up a lot since August 8th and the silty water was backing up into the clear pool which held the sockeye. The water was deep at one end and silty, but we managed to collect 92 samples. We decided to quit sampling when we started to catch more sampled fish than unsampled fish.

At 13:00 we flew to a Kustatan tributary (N60.91855, W151.98128) that had sockeye in it on August 8th. On the way we looked at the N. Fork Big River for clear tributaries with sockeye, but found none. At the Kustatan tributary we found about five sockeye just upstream from the mouth and a large brown bear that didn't like us flying over him. There were no sockeye in the mouth of the creek where I saw a large number of them on my scouting flight.

We followed the Kustatan out to the Cook Inlet and looked for other clear tributaries along the way, but found none that had sockeye. We headed back to Soldotna and dropped off Robert at 15:30.

After leaving Soldotna we flew up the Chickaloon to look for sockeye on the way back to Anchorage. We didn't see any sockeye and only a few other salmon that were probably coho. We landed at Merrill Field at 16:15.

Comments

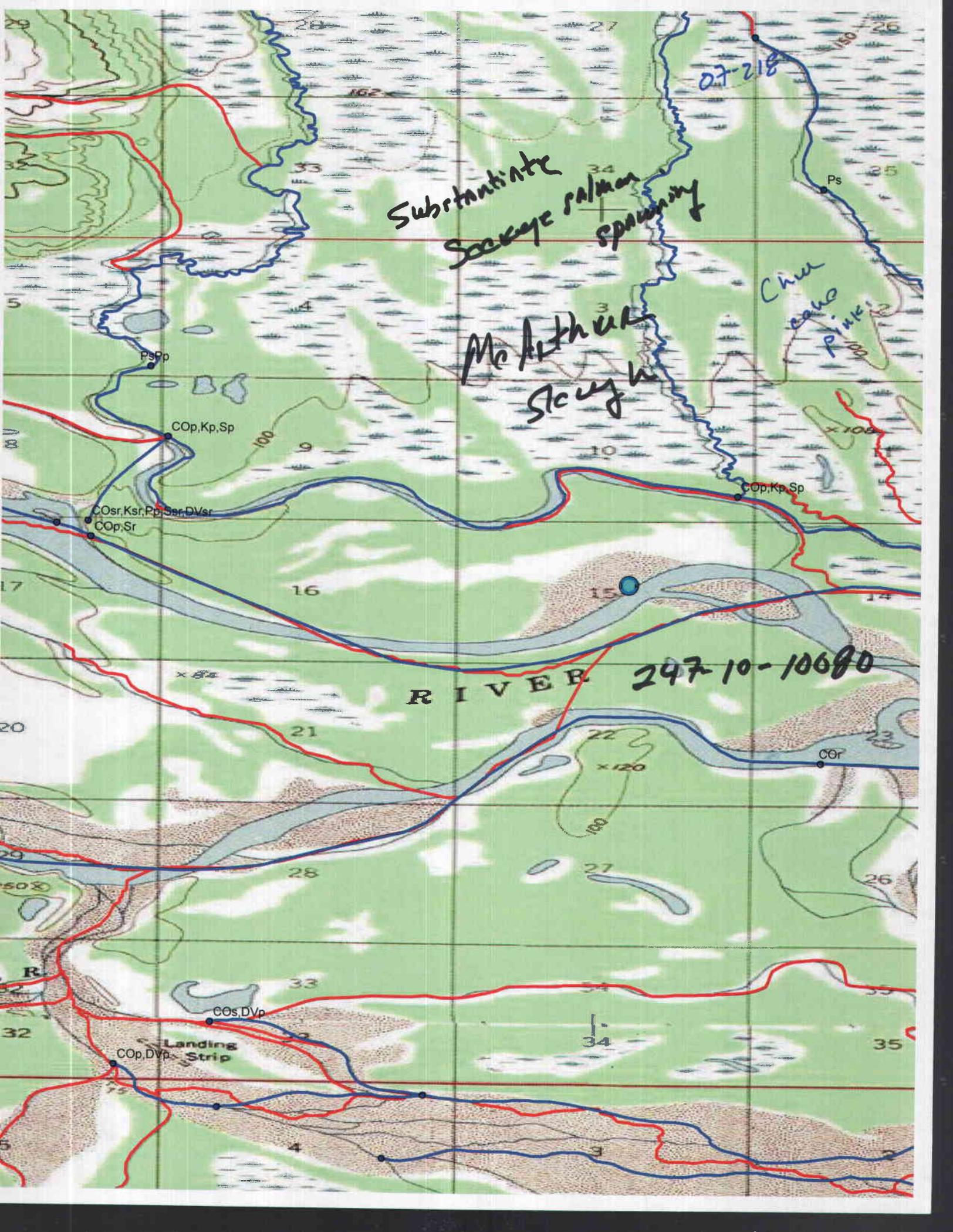
The west side of Cook Inlet looked like it hadn't received a lot of rain in the last few weeks. All of the clear tributaries were getting really low and, where there should have been sockeye, we saw nothing. If the west side of Cook Inlet receives more rain in the next couple of weeks it's possible that the sockeye will make it up some of these streams.

The warmer weather over the few days prior to the sampling trips caused a lot of glacial melt off and the main rivers were swollen with water and backing up into clear streams and lakes.

The Chickaloon River and Mystery Creek were both really low near Mystery Creek road and there were no sockeye. After talking to a few people about the sockeye run on the Chickaloon, I think that we should check for sockeye here in mid June to early July. If the run is that early then it probably is not caught in the commercial fishery.

SUMMARY OF W. COOK INLET SOCKEYE BASELINE SAMPLING TRIPS

| SITE_# | LAT | LONG | SOCKEYE_SAMPLED | awc# | sample_site | action |
|--------|----------|------------|-----------------|------------------------|-------------------------|--------------------|
| 1 | 60.95310 | -152.11860 | 124 | 245-50-10010-2047 | Blacksand Creek trib | add Ss to stream |
| 2 | 61.01249 | -152.06826 | 155 | 247-10-10080-2051-3029 | Farro's Lake | substantiate Ss |
| 3 | 61.07587 | -152.00235 | | 247-10-10080 | 13U | substantiate Ss |
| 4 | 61.04421 | -151.91590 | | 247-10-10080 | McArthur Slough | substantiate Ss |
| 5 | 61.19340 | -152.01632 | | 247-10-10080-2010 | Chakachatha | substantiate Ss |
| 6 | 61.14310 | -151.81822 | | 247-10-10080-2010 | Straight Creek trib | substantiate Ss |
| 7 | 61.16844 | -151.84170 | | 247-10-10080-2010-3040 | Straight Creek | species ID unclear |
| 8 | 60.69900 | -152.29641 | 121 | 245-50-10050-2011 | South Fork Big River #1 | substantiate Ss |
| 9 | 60.68808 | -152.32382 | 92 | 245-50-10050-2011 | South Fork Big River #2 | extend stream w/Ss |
| 10 | 60.91855 | -151.98128 | | 245-50-10010-2043 | Kustatan tributary | substantiate Ss |



Substantiate
Sockeye salmon
spawning

Arthur
Slough

Chinook
pink

RIVER 297-10-10680

Landing
Strip

COp, Dvp

COs, Dvp

COp, Kp, Sp

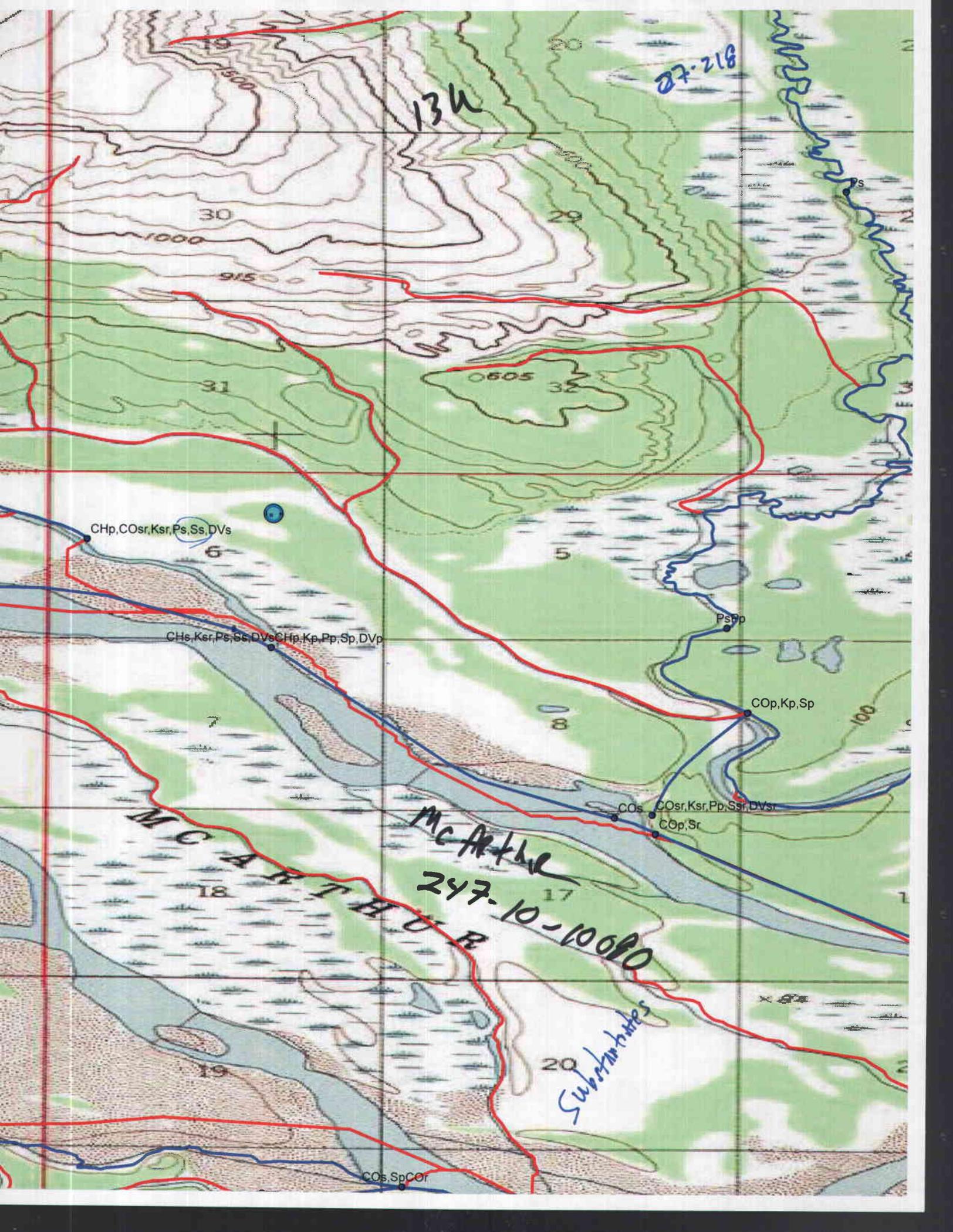
COsr, Ksr, Pp, Ssr, DVer
COp, Sr

COp, Kp, Sp

COp

PsPp

Ps



13u

27-218

CHp, COsr, Ksr, Ps, Ss, DVs

CHs, Ker, Ps, Ss, DVs, CHp, Kp, Pp, Sp, DVp

PsPp

COp, Kp, Sp

COs, COsr, Ksr, Pp, Ssr, DVsr, COp, Sr

COs, Sp, COr

McArthur
247-10-10080

Substrates

1500

1000

915

605

100

6

5

8

18

17

19

20